CITIES WITH OVER ONE MILLION INHABITANTS

Over 5 million inhabitants	■	LONDON
Over 3 million inhabitants	●	BERLIN
Over 1 million inhabitants	•	Rome

BABYLON IS EVERYWHERE

BABYLON
IS EVERYWHERE

THE CITY AS MAN'S FATE

by

Wolf Schneider

Translated from the German by
Ingeborg Sammet and John Oldenburg

McGraw–Hill Book Company, Inc.
New York   Toronto   London

CONTENTS

THE PHOTOGRAPHS

LINE ILLUSTRATIONS

Endpaper map
Cities with over one million inhabitants

PREFACE

NOT UNTIL long-range aircraft came into existence were we fully able to realize how desolate and barren our old earth still is. After hours of flying over oceans, forests, mountains, jungles, deserts, and icy wastes, we welcome the sight of a civilized area where human beings crowd together.

But for a long time great cities have been etching their traces even in the sparsely inhabited parts of the earth. Because Copenhagen and Los Angeles wanted the shortest possible route to each other, airfields were blasted out of Greenland's ice; because our cities need oil for their factories and their cars, pipelines now run across the Sahara Desert.

All roads lead to the city. Even though cities are mere islands in the countryside, they dominate the world. The fate of mankind is being decided in Moscow, London and Washington. The Polynesians drape themselves in printed cotton cloth from Manchester, while the Egyptian fellahin toil to deliver the cotton to the British textile manufacturers in Manchester.

Where, why, and when cities developed, how the rise and fall of entire tribes of people and of cultures were tied up with a city, what the cities in remote times and countries looked like, how people lived there, and what caused the cities to die—all this is as fascinating as any chapter in history.

But is there a history book that tells us where the first blocks of flats, boulevards, and horse-drawn omnibuses existed, and when the invention of glass windows made the building of cities in cold countries possible? That tells us what Nineveh was like before the wrath of its enemies destroyed the city in blood and fire? Or that tells us when Pataliputra flourished, or when Hangchow was the largest city on earth? Or why great international harbours like Visby and Bruges were reduced to provincial cities, or why the Roman empire had to break apart?

Such questions are not merely of historical interest. We learn something rather essential from the answers: how our own cities may eventually fare, what we must do today in order to give the city of tomorrow an agreeable countenance, and even more important, how we can prevent its destruction by enemies, be they a surplus of people or of automobiles. For the terrible word *destruction* is part of the history of cities from Jericho to Nagasaki.

It is high time that we should want to try to change this. Never before in history has such a large portion of mankind lived in such

tremendous agglomerations of houses and buildings. For some decades now, the population of the world has been increasing at an ominous pace. Sooner or later our cities must invade the aboriginal forests and the deserts. Our grandchildren may no longer be able to decide whether they want to live in cities or not; there may be no other place to live.

The city, and with it a highly developed culture, was born in Babylonia, shortly before that country's decline. In Babylon was assembled, for the first time, everything that constitutes the attractiveness and the danger of giant cities: culture and depravity, arrogance and money, temples of faith and those of hectic amusement, splendour and misery.

In its time, Babylon rose against the sky in solitary grandeur. In our time, hundreds of immense cities spread over all the continents, and many of them resemble Babylon more than might be obvious at first glance. Tomorrow, Babylon will be everywhere.

From the city's birth out of the mud of the river Euphrates on to the great, magnificent, tainted metropolis of later eras, and then to today's industrial-city colossus and—hopefully—to the more beautiful city of tomorrow, let us inquire into the city's fate— because it is our fate as well.

PART ONE

FROM UR TO LOS ANGELES

THE CITY is the world that man builds for himself, and it is a weird fact, of incalculable consequence, that this man-made world is on the verge of destroying nature on this earth.

A century ago there were five metropolitan cities in Germany. Today there are fifty-three in the West German republic alone. The industrial city of Angarsk, in Siberia, today has 140,000 inhabitants; not a single house was visible there in 1950. The gold-mining village of Johannesburg, in South Africa, was founded in 1886; today 1.3 million people are living there. A hundred years ago only five cities on this globe had passed the million mark; today 115 cities of more than a million inhabitants are spread over all the continents—among them some whose names are hardly known in the Western world. Who, for example, has ever heard much about Paotow-chen, a city of over a million in China?

Although these disquieting figures are taken from official statistics, the urbanization of the earth has progressed much further than officialdom has let us know. For most cities have already burst their boundaries. In some sources Paris is still listed as having 2.9 million inhabitants; actually, the city is now inhabited by 8.5 million. New York, with its surrounding area, is approaching its sixteenth million; Tokio has surpassed its twentieth.

Two hundred years hence, should mankind continue increasing at the rate it has during the last decade, the earth might well grow into a single, endless city of a hundred thousand million residents. It may never come to that, but even twenty thousand million people will find room only if most of them squeeze into giant cities. This frightening development has become obvious only during the past hundred years or so, that is to say, during the very last minute of city history, if, for the sake of illustration, we equate the whole of city history with one hour. But it has been implicit for much of the hour. When Rome was founded 2,700 years ago, more than half the hour had already passed.

The first settlements that may be called cities developed about 7,000 years ago along the river Euphrates in what is today Iraq, and in other places of Asia Minor. Having been a roaming, rapacious animal for 600,000 years, man now began, in some of the fertile river valleys between the Mediterranean Sea and the Indian Ocean, to till the soil and to congregate in cities. With this revolutionary development history and culture begin. Both are inseparably connected with the city.

Democracy developed within the Greek *polis*; but every dictator has turned his metropolis into a citadel of tyranny. The city is the

17

cradle of culture as well as of crime, the centre of misery as well as luxury. It is the conflux of vitality and nervous energy, the focal point of power and the source of decline. In the city man shows his noblest features and his most horrible grimaces. Wall against wall, roof touching roof, the city's huddled buildings contain happiness and tears, arrogance and humiliation, birth and death.

Anyone who scrutinizes the history of cities will not only re-discover world history; he will see it more compact and in sharper focus, more colourful and more cruel. Whenever there were wars, cities were starved, plundered, burned down, completely levelled by furious hatred. Whenever revolutions took place, they originated in cities or were aimed at cities. Whenever a culture came to full bloom, it was connected with the name of a city: Babylon, Athens, Rome, Florence, Paris, Vienna, Weimar. At times, the power that ruled half the earth was concentrated in a single city: Rome, Byzantium, Baghdad, Peking, Madrid, London, Moscow.

World history is city history. Ante-dating Babylon, city history begins in Ur, the Babylonian port at the juncture of the Euphrates and Tigris rivers. How, we may ask, did it look in Ur? What was it like to live there?

A caravan arriving from the Arabian desert looks down from the last sandy hills into a flowering valley where a white city rises out of wheat fields and date palms. Its characteristic feature is a tiered pyramid, about a hundred feet high, built upon a black foundation, its terraces shimmering red, blue, and gold. A temple is erected on the uppermost platform, where priests pay homage to the moon god; its interior is decorated with magnificent rugs and mosaics of many-coloured fragments of clay.

Arranged in a semi-circle around the imposing tower, in the midst of palm and cypress trees, are five temples and some treasury buildings with mighty walls, some almost three hundred feet long, with fountains and sacrificial altars in the inner courts. Here, the animals dedicated to the moon god and his goddess are slaughtered.

Not far from these temples is the burial place of the kings. It seems to consist of houses which differ only by their greater magnificence from those in the city's various quarters. But below these houses are the extensive tombs where the kings, with their servants, were put to rest. Golden vessels, precious ornaments of gold and lapis lazuli, silver utensils, harps and lyres were entombed with them.

The king's whole entourage accompanied him in death. Courtiers and servants followed the cortège into the tombs in ox-drawn wagons, and in paying homage to the king suffered the priests to kill them. Then the tombs were walled up and the godlike sovereign,

18

surrounded by everything he needed, had his everlasting peace.

Or perhaps not everlasting. Some 4,500 years later the advance guard of a different culture arrived, a culture whose outstanding characteristic is a curiosity that stops short of nothing, and with the help of pickaxe and shovel it disturbed his rest and declared the king a museum piece.

In Ur, the sanctuary of temples and tombs is walled off from the city's hustle and bustle. Six gates lead from the area of peace and splendour into the noise and congestion. Along these small crooked streets, which now and then widen into a modest square, houses crowd one another wall against wall. They consist usually of a ground floor and one upper storey, and face the street with the expanse of a white wall that is broken only by the entrance door. Windows are hardly known; air vents and the doorways of all the rooms open to the inner court. By day, light for the rooms is provided by the entrance (which often is not even equipped with a door), after dark, by the fire in the hearth or the oil burning in an earthen bowl.

The life of a family takes place in and around the inner court, which one reaches from the street through a kind of vestibule, where anyone entering the house washes his hands and feet. Hallways and stairwells are not known; the paved courtyard connects living-room, kitchen, workrooms, and the house chapel, and steps lead from it up to the wooden gallery upon which all the bedrooms open.

A house in Ur may have as many as fifteen rooms. The building material, as everywhere in the two-river country, is palm wood and mud bricks cemented with mortar and then whitewashed.

The small shops of artisans and tradesmen are open and face the narrow lanes; and flanking the streets are chapels, larger than the house altars, which are mostly dedicated to the veneration of ancestors, but much smaller than the temples of the great gods inside the sanctuary. These chapels are devoted to the worship of patron saints, such as the goddess Hendursanga, who protects the traveller in the desert, if he did not fail to leave his offerings in her chapel.

Carts with massive wooden wheels rumble along the dusty streets, the smaller carts drawn by asses, the larger ones by oxen. Barking dogs and cackling chickens add to the street noise.

Ships are moored in the harbour of the Euphrates—oar-driven ships with auxiliary sails. From Ur, they move downriver to the ocean port of Eridu and from there through the Persian Gulf to South-East Arabia and to faraway India. Ur controls the ocean trade as well as the traffic on the rivers Euphrates and Tigris. Anyone living in the rich city of Ur can be certain of foreigners' envy.

This is how it looked in Ur. One may assume that it was already a large town during the sixth millennium B.C. and that it grew to be a city in the fifth. About 4000 B.C. the city fell victim to the horrible inundation that we know in the Bible as the Flood. It left a layer of mud more than ten feet high.

The city began to flourish again about 2500 B.C. Estimates of the population go as high as 100,000. From the ruins we conclude that the city was oval-shaped, that the widest diameter was 4,264 feet, and that the area covered approximately one-third of a square mile. An equivalent area in today's city of Paris is inhabited by 37,000 people; in Calcutta up to 250,000 live in a comparable space. It is true that there were no tall tenement houses in Ur, and apparently there was no housing shortage, but there were no wide streets either. Making allowance for the space occupied by the area of the sanctuary, one might more realistically estimate the population of Ur between 30,000 and 50,000.

During the last centuries before the Christian era, this once magnificent city gradually fell into ruins, because the Euphrates changed its course and the coastline receded as the Persian Gulf filled up with sand, a process that is still going on.

The Euphrates today flows at a distance of about ten miles from the site of ancient Ur. The irrigation canals which had turned the two-river country into a flowering garden are now buried under the sand of thousands of years. The Baghdad Express stops at the village of Mugajjar in the middle of the desert. Only the ditches dug by archaeologists, and a hill that now hides the ancient tiered tower, serve as a reminder that here once existed a city that for three thousand years was one of the richest and largest on earth.

In 1781 Spanish missionaries, travelling up from Mexico, founded the village called Nuestra Señora la Reina de los Angeles, or "Our Lady the Queen of the Angels", in the province of California. In 1848, still a small town, Los Angeles became part of the United States. In 1880 the town had a population of 10,000. Today the city is inhabited by nearly seven million people, who own nearly three million cars. It is the world centre of the automobile cult as well as of the airplane industry. The second largest American city, it is the fastest-growing city on earth. By 1975 Los Angeles expects to be the largest of all cities.

Only the old Spanish nucleus of Los Angeles is compactly built, and there are few skyscrapers. Otherwise the city is an immense garden of one-family houses. Oil-well derricks, factories, chicken farms, orchards, palm groves, hotels and motels, and chromium-plated supermarkets are haphazardly scattered across an area that extends for more than sixty miles between ocean and mountains

and gradually dissolves into ranches or the desert. It is an American saying that "Los Angeles looks like a great many suburbs in search of a city".

The wide tree-lined boulevards are up to forty-five miles long; the house numbers go as high as 30,000. Four-fifths of all the working people drive to their jobs in their own cars. A trip of sixty miles to one's place of work is not at all uncommon. Two-fifths of the downtown area is taken up by parking lots and parking garages. Every day, after work, millions of cars move forward in four lanes through endless blocks of houses—or on eight-lane elevated express ways above them. Helicopters supplied by a broadcasting company watch the stream of traffic and inform the drivers through their car radios when and where a traffic jam has occurred, and how best they can skirt around it.

The automobile is a necessity in this city, which has squandered space as no other city in the world. Unorganized and unchecked, it is pressing ever onward into the open country. There is no temple around which these houses cluster, no wall behind which they crouch.

The city on the banks of the Euphrates established itself within a wall; the city at the edge of the Pacific devours its environment. In Ur, even inside the walls, the houses turned their faces away from the narrow streets; windowless, with a single door, each was like a small burgh within the big fortress, the inner yard resembling the doubly walled-in courtyard of a castle. In Los Angeles large windows lay the house and its inhabitants open to anyone who wants to look; indeed, if a homeowner should prefer to draw the curtains at night instead of exposing himself to public indulgence, he would make himself quite unpopular.

Oil lamps flickered in Ur; Los Angeles is bathed in neon light. But illumination is only a side effect; the real purpose is communication. Neon tubes and loudspeakers provide the persuasive appeal that in the market places of Ur still came from the human voice. In Ur the lanes and streets were alive with human beings; the avenues and boulevards in Los Angeles, which attest to the triumph of the automobile, are without pedestrians. If there is a living being on foot, it is usually a dog or a cat.

The city of Ur kept the golden horror of its royal tombs out of sight. Los Angeles' Forest Lawn, enveloped in soft music, is well advertised: "Visit the most magnificent cemetery in the world! Gigantic glass paintings, representing 'The Last Supper'! Jan Styka's masterpiece 'The Crucifixion', the world's most powerful painting, 195 by 45 feet!" In Ur, all life and endeavour was dedicated to the service of the moon god Nannar-Sin and his priests. It is not easy to find out whom the seven million Angelenos serve.

If one asks them, they of course deny most vigorously that they are serving anybody.

Ur flourished for three thousand years; Los Angeles can look back upon a little more than half a century of vigorous life. How long will it continue to prosper?

It must be admitted, though, that among the cities of the future that we are able to study, Los Angeles is one of the most agreeable. It is spacious, it has stretches of greenery, it has no large tenement buildings. To anyone living in the stone canyons of New York, or in the dreary working-class suburbs of Paris, or in the industrial smog of the Ruhr, or in the wooden shacks of a Siberian city, the sun-drenched, verdant, expansive city of Los Angeles must seem a paradise.

And yet, a closer look at Los Angeles should make us somewhat apprehensive. One may put up with the fact that this city is without form and without heart. But its unbridled and brutal growth is what is so disquieting. And tomorrow there will be a hundred more cities with a million inhabitants.

The city of yesterday drew its strength from its contrast to the rural environment. It meant to be different. It needed the fields and the woods as its opposites. Today's city covers more and more of the countryside with its houses.

In spite of the fact that certain city areas today cover a space comparable to an entire Roman province, and come close to the number of inhabitants of the whole Roman empire—about 55 million—we have not yet seen a modern city achieve the importance of ancient Rome.

How did this all begin?

PART TWO

THE CITY'S BEGINNING

THE INVENTION OF AGRICULTURE

AT THE beginning of the city was the Flood.

We customarily think of man as being the mammal that concentrates in throngs of millions in many places of this earth. But this is a quite recent development. For thousands of centuries man lost himself in the expanse of the land. Some 20,000 years ago perhaps a dozen tribes, numbering in all only several hundred people, roamed the territory that today is France. It was the masses of animal herds, rather than groups of men, that dominated the earth.

North America (excluding Mexico), where now approximately 200 million people live, was inhabited by close to one million Indians when it was discovered by Columbus. Actually, during the first 590,000 of mankind's estimated 600,000 years, hardly more than ten million human beings can have existed—less than there are now in the greater New York City area—and during the first half-million years there were possibly not more than a few thousand people living on this earth. The great increase in population, and with it the advent of culture, occurred only during the last 10,000 years. The American zoologist Marston Bates arrived at this estimate through simple arithmetic: The earth's land area is 51 million square miles; approximately 35 million square miles are habitable according to today's standards, but only 19 million square miles at most are fertile land. At least two square miles are necessary for a man to feed himself, if he depends on hunting and gathering his food; this is proved by our knowledge of the still existing primitive peoples.

Only after the 590,000 years, during which man fed upon animals he hunted, and fruit, berries, and roots he gathered, did that revolution begin which, steam engine and atomic energy notwithstanding, may be called the most momentous in the history of mankind—the invention of agriculture.

Great changes do not happen in a day. From the first machine of the Frenchman Papin to the high-powered steam engine of the Englishman Watt almost one hundred years elapsed. From the first attempts to grow a plant to the first wheat fields swaying in the breeze more than five thousand years must have passed.

We may assume that the development happened like this: Between 12,000 and 10,000 B.C. the fourth and so far last Ice Age came to an end. In the warm areas of the Near East, the cradle of culture, the Ice Age was a rain period. When it ended, vast regions of Asia and Africa began to dry up—a process that is still going on in the Sahara Desert. This decisive change in climate drove many of the game animals away and thus forced man to look for other sources of food. Hunting was more and more supplemented by fishing, and man began to eat snails, shellfish, and other non-game animals.
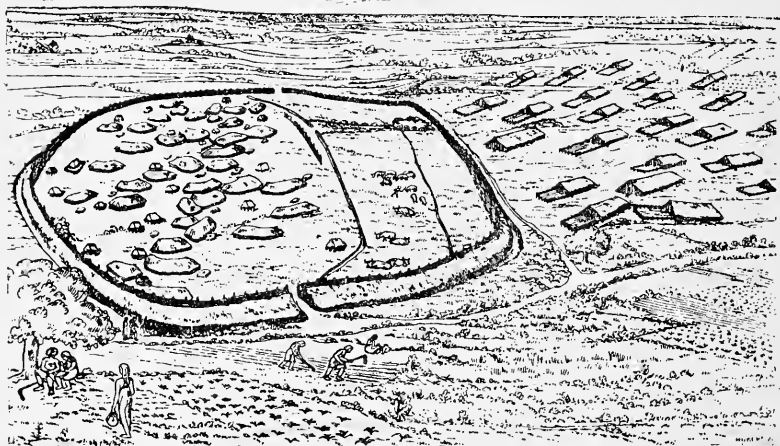
Predecessor of the city—the fortified village. Here is shown an attempt to reconstruct a village during the early Stone Age. Inside the walls, at the left, are houses with small storage sheds; at right, the pastures for cattle. The buildings outside the perimeter are barns.

At the same time—probably during the ninth millenium B.C.—man in Asia Minor succeeded in taming the dog, who became useful to him in two ways: as helper in the hunt and as guardian of the camping place. The domestication of this first animal was followed by that of goats and sheep, and then of asses and cows. This was a big step forward—the hunter became the herdsman.

The migrations of the nomadic tribes were now no longer solely determined by the habits of the hunted animals and by the instability of the hunter's luck; they became more and more subject to the search for good grass and water for the domesticated animals. When new pastures had to be found, the tribesmen loaded their asses with tents and utensils and moved on.

26

There were areas in river valleys, however, where water and grass were in plentiful supply all through the year, while at the same time the spoils from fishing enriched the menu. A progressive horde could eventually give up nomadic existence after having found such a fertile valley, which, if necessary, could be successfully defended. These people settled down. They gave up living in tents or caves and built the first houses of stones, mud, and branches.

The Stone Age housewife played a conspicuous rôle in making this fundamental change possible. It had always been her task to gather berries, while the men tracked down the bears. By using a stick, the women made it easier for themselves to burrow in the soil in their search for edible roots and small animals. And they discovered—perhaps about 8000 B.C.—that one also could dig holes not only for getting something out of the ground, but in order to put a small shoot into it. This was the great moment when man took his first step from gathering to producing. The gathering woman became the gardening woman.

From digging stick to improved stone tool, and finally to hoe, man proceeded. But as yet each seedling was individually planted, as is customary in gardening. It was during this period that the oldest grain, millet, was sown.

Finally, with the advent of the wooden hook-plough, drawn by ox or ass, real agriculture began. Instead of gardening, man now began to farm on a large scale. Besides millet, he now grew wheat and barley.

When and where agriculture first developed is a matter of conjecture. It probably happened during the Middle Stone Age (10,000 to 3500 B.C.) when bow and arrow, stone hatchet and clay jug were the most essential utensils. Most archaeologists approximate the time as the sixth millenium B.C. and consider the high plains of present-day Iran and Turkey as the place of origin.

Agriculture soon descended into the four great river valleys where it prepared the way for the earliest great cultures of mankind—first to the Euphrates and the Tigris in the territory of today's Iraq, then to the Nile in Egypt and to the Indus in today's Pakistan, and later into the valley of the Hwang Ho (Yellow River) in China.

These river valleys have something in common—flooding. Once a year, or more frequently, the great watercourses rise over their banks, irrigating large areas of parched land and depositing millions of tons of fertile silt. This is the soil which, without any fertilization, again and again produces rich crops of wheat.

Man has to pay for everything in this world, to be sure. Each April, when the Euphrates unloads the melted snow from the Turkish mountains into the Persian Gulf, the river still floods as in olden times. Nowadays, however, the Euphrates flows over a desert

and leaves a desert behind, and Iraq, as ancient Babylonia is named today, is one of the most impoverished countries on earth.

During the fifth millenium B.C. it was inhabited by people who knew how to turn the flood to their benefit; they built a system of dams, canals, and irrigation ditches that enabled them to direct the yearly flood as they wished, and to preserve some of the water for the dry period. Moreover, canals conveyed water from the Euphrates down to the river Tigris, which was at a lower altitude, with the result that irrigation functioned all year long.
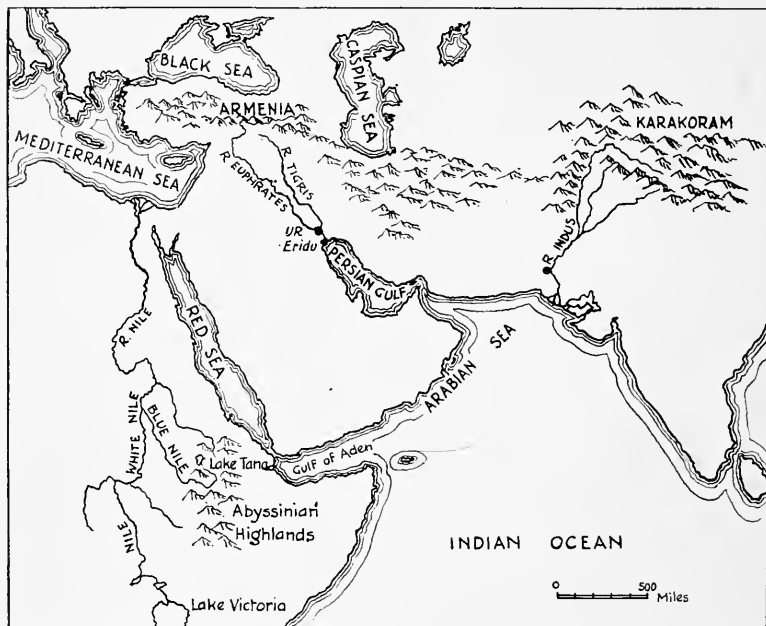
The rivers along which civilization began.

In Mesopotamia (meaning "the land between the rivers") wheat, barley, the oil plant sesame, and date palms grew in rich abundance. Dates were eaten fresh or dried as date bread; they also yielded date honey and date wine, and fattened the cattle.

As early as the fourth millenium B.C., at a time when in Europe hunters and herdsmen were still deep in the Stone Age, people living in the area between the Euphrates and the Tigris knew how to work copper and bronze into ploughshares, harrows, and spades.

28

About 450 B.C., Herodotus, the Greek historian and world traveller, was amazed by Mesopotamia's luxuriance:

> The Babylonian country is threaded by numerous canals. Of all the countries known to us, this one ranks first in the yield of its grains . . . The ears of wheat and barley are easily as wide as four fingers, and I will not even try to describe millet and sesame, because I am afraid that to anyone who did not get to see the Babylonian country, the aforesaid may sound quite unbelievable.

When in the seventh century of the Christian era high floods had once again destroyed the irrigation system, it was only partly restored. Later, this remaining part of the system fell victim to the destructive rage of the Mongolians, who also demolished Baghdad. Within a few years mankind's oldest cultivated land had reverted to a desert.

The Nile, unlike the waters of Babylon, is still creating fertile land today as it did six thousand years ago. In much the same way as, 1,250 miles to the south-east, the snow from the Turkish mountains once made the wheat fields thrive, the big rains around Lake Victoria and Lake Tana still fertilize the Egyptian desert three thousand miles to the north. The river does not overflow its banks in one overwhelming outburst as the Euphrates does in April, but in several waves from July to October, and therefore the land remains fertile even though there are few irrigation canals and almost no rain.

In early times the cause of these repeated floods was unknown (the sources of the Nile were not discovered until the nineteenth century), yet this lack of knowledge did not prevent the beginning of agriculture in the Nile valley during the fifth millenium B.C.—not much later than in the valley of the Euphrates.

If the flood failed to occur, it meant catastrophe for Egypt. About 2600 B.C. one of the Pharaohs had the following plaint chiselled on to his tomb on the Nile island of Sahal:

> Sitting on my high throne, I grieve over the dreadful tragedy: In seven long years the floods of the Nile have failed to come. Meagre is the grain, the harvest sparse, and food of any kind is in short supply. Everyone has become a thief, craving for what is his neighbour's. The small child whimpers, the youth and the old man alike shuffle wearily along, the store-rooms have been broken into, yet instead of food they contain but air.

During the fourth millenium the third of the great ancient cultures developed in the valley of the Indus River, where the spring

thaw of the Himalayan snow increases the quantity of water to fifty times its normal amount.

Through these floodings, and through their inventiveness in exploiting them, our ancestors on the banks of the Euphrates, the Nile, and the Indus achieved a stage of affluence and culture almost 7,000 years ago. Not till 3,000 years later did southern Europe reach a comparable stage, while primitive tribes that exist in Asia, Africa, South America, and Australia even in our time still depend on hunting and gathering, or are wandering from pasture to pasture with their herds—people without cities.

If one does not just take from the earth, but also digs and works it, it will produce so abundantly that one can settle down. This is a great discovery, that to cultivate the soil is more rewarding than to plunder it. Nature, having been man's great adversary from time immemorial, now becomes his friend. The earth is no longer only sand, clay, or dirt; it now becomes "Mother Earth".

Suddenly, people claim a piece of land as their property. They build a dwelling on it and forbid others to trespass—not only for one summer, but for all time. Hunter and herdsman, accustomed to pitching their tents now here, now there, on territory that belongs to everyone and no one, must have looked upon this settling of the land as a high-handed intrusion on their rights, a provocation of the first order. Small wonder that the nomad makes efforts to destroy the peasant's existence.

All the more so as the peasant's labour fills him with envy, since he realizes that this land, ownership of which is now claimed by a single tribe, bears fruit and produces wealth. And, too, those bent on becoming farmers must be filled with greed when they find the small strips of fertile land along the river banks already taken possession of by another tribe.

The old habit of man to live together now gets a new incentive: A tribe that has settled down somewhere must draw even closer together in order to defend itself against the nomads or against rival agriculturists. The camp consisting of tents now grows into the village that protects its own with palisades or with walls and ditches.

The mud land of the great rivers is so fertile that for the first time many people *can* live together in a small space; on the other hand, the area on which the precious mud is deposited each year is so small that many people *have* to live together in a limited space.

And so it is just a short step from village to city. Agriculture makes the city possible, but in the river valleys it also makes the city necessary. Where cities are, fields under cultivation cannot be far away; where wheat is growing, a city will soon be growing too.

The Biblical story of Cain and Abel shows us the primal relationship between agriculture and city:

> In the process of time it came to pass, that Cain brought of the fruit of the ground an offering unto the Lord.
> And Abel, he also brought of the firstlings of his flock and of the fat thereof.

Abel offered what hunters and herdsmen always have offered to the gods: animals. But Cain was "a tiller of the ground", and he wanted to offer the Lord the fruit of the ground:

> And the Lord had respect unto Abel, and to his offering; but unto Cain, and to his offering, he had not respect.

The fruit of the ground—that was a daring novelty, incompatible with the ancient sacrificial rites:

> And Cain was very wroth, and his countenance fell . . . And it came to pass when they were in the field, that Cain rose up against Abel his brother, and slew him.

Even though the Lord was angry with Cain, he wanted him to live:

> Therefore whosoever slayeth Cain, vengeance shall be taken on him seven-fold. And the Lord set a mark upon Cain, lest any finding him should kill him.
> And Cain went out from the presence of the Lord, and dwelt in the land of Nod, on the east of Eden.
> And Cain knew his wife; and she conceived, and bare Enoch; and he builded a city, and called the name of the city, after the name of his son Enoch.

Cain, the first "tiller of the ground" mentioned in the Bible, was also the founder of the first city mentioned in the Bible. God wanted the murderer to live because he was also the bringer of the new.

In the beginning of agriculture as well as of the city, then, is fratricide. As we follow our history, we may well feel that this murder was avenged without limit on the inhabitants of the cities— the heirs of Cain.

31

Chapter 2

THE INVENTION OF WALLS

EVEN THOUGH we do not know what Enoch, Cain's city, looked like, we may be reasonably certain that it was surrounded by walls.

Up to a century or two ago, in most of the world a city without walls was as rare as a European garden without a fence is today. The English word *town* is related to the German word *Zaun*—meaning "fence". The town is the fenced-in or walled-in space. The customary term in speaking of a city dweller in the Roman Empire was *intramuranus*—he who lives within the walls.

The German word *Bürger* serves as a reminder that once a town or city and a burgh were often practically the same. And in German, the territory of a city is still referred to as *Burgfrieden*, even though for a long time peace within the city has not been safeguarded by fortified walls. And nobody thinks it odd if the Lord Mayor of a metropolis whose walls were torn down 150 years ago still welcomes distinguished visitors "inside the walls of our city". Anything as closely connected for over 7,000 years as city and walls may have become disconnected in the reality of 150 years of industrial age, but it tends to live on in the realm of speech.

The beginning of it all was the brick. During the fourth millenium B.C. bricks of mud came into use in Mesopotamia. This was a tremendous innovation for a country that had no stones. Sun-dried bricks were used for ordinary structures; they were strengthened by the addition of burnt bricks in buildings of special importance. Now each larger settlement could have walls for its protection.

But hardly had man developed the skill to make bricks, or to hew stone blocks into shape, when he was no longer satisfied with building what we would call a wall today. He now employed his ingenuity to build fortifications whose dimensions seem almost unbelievable to us.

About 2700 B.C., for example, the big city of Uruk in southern Babylonia surrounded itself with a double wall nearly six miles long and studded with 900 defence towers.

About 2500 B.C., the citizens of Hazor (now Tell Wakkas) in Canaan built a brick wall on stone foundations around their imperial city. It was more than 24 feet thick. "The cities are great and walled

up to heaven"—thus Moses' emissaries described the cities of the Holy Land.

About 1400 B.C., the walls of Tiryns arose, that mighty Peloponnesian fortress which competed with other Greek cities in claiming to be the birthplace of Hercules. The outer wall was 19 feet 7 inches thick, the inner wall 32 feet 8 inches thick and 52 feet 5 inches high. It was built of squared stones, some of them weighing half a ton, and the Greeks, believing that Cyclopes had erected the wall, were no less impressed than they were by the Egyptian Pyramids.

The walls of Niniveh were also 32 feet 8 inches in width when, about 700 B.C., this city was the metropolis of the Assyrian empire.

The Persian mountain fortress Ecbatana (also Agbatana, now called Hamadan), one of the main cities of the Persian empire, protected itself during the seventh century B.C. by a system of walls within walls, seven in all.

About 600 B.C., Nebuchadnezzar had five concentric circles of fortifications built around Babylon. The city nucleus was fenced in by a double ring of walls, the outer one 23 feet thick, the inner 26 feet. The space between the two walls was 39 feet wide and was probably filled in with earth, thus creating a wall 88 feet thick. It was commanded by 600 turrets.

These examples show clearly that man's first walls were not simply the demarcation line of the city limits, a symbolic way of discouraging intruders; they signified the attempt to find complete security, to safeguard the city for all time against assaults born of envy and hostility. The attempt, however, almost invariably failed.

But all this is not enough to explain the massive walls of Tiryns, Ecbatana, or Babylon—cities where the volume of the walls probably exceeded the volume of the walls of all the houses in the city combined. Something else must have entered into it. The citizens apparently tended to emphasize, almost gratefully, the city's representative feature. If the city walls were a mark of identification, they were probably also understood as a mark of distinction. There is a tremendous wall—it must be a powerful city that hides behind it, people thought; that wall even has purple and golden battlements—he must be a great king who rules the city! And one may also assume that a predisposition for the monumental, the boundless, played a part here as it did with the builders of the Pyramids, or of the Gothic cathedrals of the late Middle Ages—cathedrals which could house more people than were living in the surrounding city.

Thus the city demonstrated its power and displayed its wealth. What else could have prompted the building of such giant walls? For what other reason would the city have needed such a defence system? Thanks to these walls the city rose imperiously above the

surrounding country. By means of these walls it assuaged its fear and apprehension of others. Simultaneously admired and hated, the city announced its claim to be something different, something better, than the country.

This also gives us the clue when still to speak of a village and when of a city. A settlement that can afford more than just a dam or a fence—a real stone wall—merits, under conditions prevalent in antiquity, to be designated as a city, especially when its heart is a temple.

Today it is not possible to distinguish clearly between city and village. On the contrary, we shall see that both concepts no longer make any real sense. There are places with perhaps 30,000 inhabitants that could not possibly be called a city, because they lack certain essential ingredients; then there are miniature cities, smaller than a normal village.

There are villages with sizable machine industries; there are cities in Saxony, Baden, Württemberg, northern Switzerland and Sweden, and with predominantly peasant populations, particularly in Sicily, Spain, and Hungary. In Europe, at least, a city is often less defined by character of its population or a type of business enterprise than it is by its charter, the document bestowed upon it by the country's ruler.

In West Africa, to jump to another extreme, it is not unusual for several villages to share one wall for their mutual protection, thus producing the village-city. In the United States the term *village* is now used quite loosely. It can now denote a rural settlement of small size or, in Los Angeles or New York, a large section of the city (Westward Village, Greenwich Village).

Obviously, we cannot always distinguish between a village and a city in antiquity. However, let us consider the Babylonian temple-state as the oldest form of a city—the settlement with a wall as its shell and a temple as its core, ruled by a priest-king.

Who formerly had been the chieftain now rose to the rank of priest-king, owing to his greater importance caused by the transition to agriculture. There had to be someone who could give orders —to say where and how to build the dams and dig the irrigation ditches. He also had to induce the benevolence of the gods, had to ward off illness and want, had to attend to the sacrificial offerings, so that the floods did not fail to come. In short, he was looked upon as the representative of the gods.

Around the temple where the priest-king communed with the gods, and the near-by palace where he resided, the priests were settled, and also clerks, scholars, and soldiers. The king probably looked upon this arrangement with favour, since most sovereigns take pleasure in constantly being confronted with their subjects.

About 4000 B.C., the rich harvests from the fields made possible, for the first time in history, a class of unproductive tribesmen fed by the toil of the peasants—one of the necessary conditions for a city. Besides the priest-king's attendants there were artisans and tradesmen, and the peasants too moved inside the protective range of the city walls.

In Lagash (now called Tello), one of the large settlements of ancient Babylonia and the residence of the Sumerian kings about 2650 B.C., an inscription by the founder of the city, Urnanshe, tersely defined the essentials of a city of 5,000 years ago. The cuneiform text states that the king "built the temple and the walls, erected statues, dug a canal, and filled the storehouse with grain".

The temple as nucleus and the wall as bastion mark the very beginning of city development, and they determine all through city history, except for very recent times, the countenance of the city. If a temple was not the city's core, then a palace was, or a burgh, a capitol, or a cathedral. Cities without this core were exceptions, and certainly no big cities existed among them.

The tremendous walls of Carcassonne, in southern France, were built as late as the thirteenth century, and Paris was surrounded by a new wall, later still, in 1841. The change-over to the modern, heartless, limitless city took place during the nineteenth century. At that time the walls came down, and one began to think that temples or churches were not needed. Today one might even raise the question whether it still makes sense to call them cities— the seas of houses pouring over the old walls and making a mockery of the temples.

Chapter 3

THE ABC OF DESTRUCTION:
JERICHO AND TROY

THE MOST famous of all walls were those of Jericho (now called
Eriha), and it is probably not just accidental that this coincides
with two other facts: that Jericho, ever since it was excavated in
1956, has been considered the oldest settlement resembling a city,
and that death and destruction are the first things we hear about
this city in the Bible. Burning, pillaging, and massacre are as much
part of the city as the walls.

The migration of the Israelites into the Holy Land about 1200
B.C. was threatened with failure by the walls of Jericho. Jericho was
an oasis by the river Jordan, not far from the Dead Sea, 1,150 feet
below sea level—a verdant speck in a desert of chalk, towered over
by barren mountains. One of the mightiest bulwarks of Canaan,
Jericho at the same time was the roadblock at the entrance to the
land where milk and honey flowed—historically, therefore, a strip
of land which the nomadic tribe of the Israelites wanted to take
away from its owners, in order to be able to settle down and to
farm the land. We have already seen that this situation was typically
one that led to the building of cities.

Any attempt to take Jericho by storm must have seemed utterly
hopeless. The outer wall is 6 feet 6 inches thick and almost 33 feet
high. Ten to 13 feet inside of this is a second wall 11 feet 6 inches
thick. The fortification encircles a minute city approximately 590
feet in diameter. Here only the king, the patrician families and the
wealthy tradespeople lived, while the rest of the population dwelt
in mud huts outside the walls. The Bible reports:

Now Jericho was straitly shut up, because of the children of
Israel: none went out, and none came in.
And the Lord said unto Joshua, See, I have given into thine
hand Jericho, and the king thereof, and the mighty men of valour.
And ye shall compass the city, all ye men of war, and go round
about the city once: thus shalt thou do six days.
And seven priests shall bear before the ark seven trumpets of
rams' horns: and the seventh day ye shall compass the city seven
times, and the priests shall blow with the trumpets.

36

And it shall come to pass, that when they make a long blast with the ram's horn, and when ye hear the sound of the trumpet, all the people shall shout with a great shout: and the wall of the city shall fall down flat, and the people shall ascend up every man straight before him.

Joshua did as bidden, and the walls burst open, and all the inhabitants, children as well as the old people, were slaughtered, all except one harlot:

So the people shouted when the priests blew with the trumpets . . . and the wall fell down flat, so that the people went up into the city, every man straight before him, and they took the city.
And they utterly destroyed all that was in the city, both man and woman, young and old, and ox, and sheep, and ass, with the edge of the sword . . .
And they burnt the city with fire, and all that was therein: only the silver, and the gold, and the vessels of brass and of iron, they put into the treasury of the house of the Lord.
And Joshua saved Rahab the harlot alive, and her father's household, and all that she had; and she dwelleth in Israel even unto this day; because she hid the messengers which Joshua sent to spy out Jericho.
And Joshua adjured them at that time saying, Cursed be the man before the Lord, that riseth up and buildeth this city Jericho: he shall lay the foundation thereof in his firstborn, and in his youngest son shall he set up the gates of it.

This much for the sound of the nomad's hatred of the city, of the walls which dare to bar his way and to claim a piece of land as permanent property. This alone—the claim of ownership expressed in blocks upon blocks of stone, the cultural superiority over the wandering herdsmen—was the sin of the city of Jericho. Verily, the cities had ample reason to surround themselves with an armour of walls. And if the cities even in pious books are dealt with as we have heard, we should not be surprised if they again and again are drenched in blood—cities from Jericho to Warsaw, from Niniveh to Hiroshima.

Some authorities have suggested that an earthquake toppled the walls of Jericho. Earthquakes are no rarity near the Dead Sea (Sodom ànd Gomorrah also fell victim to such a catastrophe), and in the ruins of Jericho archaeologists have found broken stones, blackened remnants of walls, charred wood, and other rubble suggestive of a quake.

But the archaeologists also discovered that Jericho is much older

than had previously been estimated. Underneath the ruins of 1200 B.C., fragments of older settlements came to light. The period of the deepest layer is estimated to be about 5000 B.C. This layer contains fragments of round houses, whose outlines are reminiscent of the nomadic tent—the dwelling of people who are in transition from being hunters to being farmers, who were making first attempts at working clay into pottery and at building solid houses. It is due to these findings that Jericho is considered the oldest of all cities, but though there is no argument about its age, the question remains whether this oldest part of Jericho may rightly be called a city.

The longest tale of destruction, and of attempts to safeguard a city by building its walls ever higher, is told by the many layers of rubble which for two and a half millenniums was considered the oldest one on earth: Troy (also called Ilios, Ilion, and Ilium). We know now that Troy is very much older than the Romans and Greeks assumed, even though it is still far from being the earliest city.

In the north-west corner of Asia Minor, in what is today Turkey, a hill called Hissarlik rises from a fertile plain wedged between rivers. It is situated at a distance of approximately four miles both from the coast of the Aegean Sea and from the Dardanelles. And if its location was equally convenient for farmers, fishermen, and traders, it was unsurpassed for power-thirsty kings and covetous pirates: Anyone entrenching himself here in a fortress could block the passage from the Aegean to the Dardanelles, to the Sea of Marmora, and to the Black Sea.

The first burgh on this hill was built about the end of the fourth millennium. Its ring wall surrounded a space of only 295 feet in diameter. This could hardly be called a city; it probably came closer to being a kind of pirates' nest. What is left of it has been numbered Troy I by the archaeologists.

Troy II covered a somewhat larger area. The outer wall was 13 feet thick and some 52 feet tall. Unlike Troy I, which still belonged to the Stone Age, Troy II has yielded jewellery and household utensils of gold and silver, besides simple clay vessels. This fortress was destroyed by fire about 2300 B.C.

A new settlement grew upon the gigantic ruins: Troy III. It ended in fire and plundering. The fate of Troy IV and Troy V was similar.

Troy VI was built during the eighteenth century B.C. The castle now had a diameter of 656 feet and covered the entire hill. The houses were built on ascending circular terraces. The outer wall had a length of 3,283 feet and was no longer made of mud bricks,

but of hewn stones. This Troy headed an alliance of cities of north-west Asia Minor, until in the thirteenth century an earthquake ended its splendour.

It was probably about 1200 B.C. that a tremendous military force of the allied Greek tribes arrived before the once more rebuilt city and began the siege of "Ilios, city of magnificent houses", as Homer called it. The archaeologists simply call it Troy VIIA.

According to the *Iliad*, Paris, son of Troy's King Priam, had abducted the beautiful Helen, wife of the Spartan Menelaus, and the Greek coalition marched up to the walls of Troy to get her back and to avenge the insult. Herodotus, to be sure, was of the opinion that the Trojan War had been a foolish undertaking, "since it was obvious that this woman would not have suffered herself to be carried off if it had not been her own wish". He also conjectures that the Trojans for their part would have preferred to return Helen, rather than be under siege for ten years, if that had still been possible.

There is much to be said in favour of the assumption that Helen's abduction, be it historical or not, was the cause of the Greeks' war against Troy—the straw that broke the camel's back, so to speak. But the actual reason seems to have been their determination to raze this fortress which exerted control over the shipping lanes to the trading centres on the Black Sea.

If Homer is correct, the struggle, in which Hector and Achilles died, raged for ten years—until at long last Odysseus rolled up the hollow wooden horse that the Trojans erroneously took to be an offering to the city-goddess Athena. Pulling it into the city after the besiegers apparently withdrew, the Trojans found themselves outplayed. Once again, Troy was ransacked and burned down.

New settlers built a new city (Troy VIIB) upon the hill, which had grown from the rubble of the seven previously destroyed cities— and new enemies came to destroy it. Greek settlers erected upon these ruins during the fifth century the city Troy VIII, which they named Ilion; in 86 B.C. it was burned to the ground by the Roman general Sulla.

But out of these ruins grew Troy IX, the Roman colony New Ilium. And this particular Troy almost became the centre of the world, which is the most astonishing part of the colourful and terrifying history of this hapless city.

It happened at some time during the fifth century B.C. that Rome, a growing city in the central Italian province, Latium, made the embarrassing discovery that it had no history. Nobody knew how old this city was, which had just taken its first step on the road to world domination; worse still, the presumptuous newcomer on the world stage seemed to have no connection with the people from

whom, according to a then prevailing view, all culture derived: the Greeks.

In their desire to link themselves to the Greek world the Romans happened upon the oldest recorded event of Greek history, the Trojan War, which became the background for the legend of Aeneas.

Homer depicts Aeneas, a son of Aphrodite, as one of the bravest heroes of Troy. According to the Roman story, he escaped from the burning city. Carrying his crippled father on his shoulders and leading his son Ascanius by the hand, he fled westward. After a long period of wandering he finally settled in the province of Latium, married the daughter of King Latinus, and thus laid the foundation for the Roman empire. One of his descendants was Romulus, according to legend the founder of Rome and the ancestor of the ancient Roman kings.

To the Romans this tale passed for history, and it gave them a sense of political mission. The mighty city of Rome was proud to have the tiny city of Troy as its parent. In 29 B.C., on the request of Emperor Augustus, the legend was given its appropriate, classical form by Virgil: it became the *Aeneid*, the national epic poem of the Romans.

Many important Roman families, falling into line, traced their ancestors back to Trojan heroes; for example, the Julii, the imperial house of Julius Caesar, who looked upon Ascanius, son of Aeneas, who in Latium adopted the name Julius, as their forefather. In the era of the imperium, wealthy Romans took pride in making a pilgrimage to Ilium, the emperors Hadrian and Caracalla among them. The Persian king Xerxes also paid his respects to Achilles' burial place, and so did Alexander the Great, who anointed his grave and decked it with flowers, and came away with the shield that presumably had belonged to Achilles.

When Emperor Constantine the Great was casting about for a capital for the eastern half of the empire, he seriously considered making the hill of Troy the nucleus of this metropolis—an idea with which Alexander the Great reputedly also had toyed. Even though Constantine eventually made Byzantium his residence in A.D. 330, his successor Constantine II, who reigned from 337 to 351, had large fortress gates built at the spot on the shore where he presumed the Greek military forces had landed and put up tents. Later on, this attempt at reviving Troy's paled glory was abandoned.

All this shows how tenaciously a city, and what it stands for, survives, though it must be said that Homer contributed his share. But it is significant that the oldest and greatest epic work of the Occident treats of a city—of the battles waged over it, and of its ultimate destruction.

The Roman city New Ilium was finally destroyed by the Turks in the fourteenth century. And after four thousand years of alternating ruin and renewal, the destruction was final. Nobody wanted to live again on this infamous, fire-blackened, blood-soaked hill. Troy remained dead.

To go to pieces—that is the ultimate fate of all cultures. Which pieces of our culture will prove the most durable—tin cans, recording discs, automobile cemeteries, bomb splinters?

Chapter 4

THE BEGINNING OF CULTURE:
URUK AND KISH

WE MAY be consoled by the realization that what is left of the cities of ancient Babylonia is more than a pile of rubble—it is a culture upon which our own culture is based.

And though it may be true that none of the cities of the two-river country is as old as Jericho, they are incomparably larger, more "city-like", and more numerous than the burghs of Canaan.

In the beginning of city culture and of culture in general, we have the Babylonian cities of the fourth millennium B.C., the most prominent being Eridu, Ur, Lagash, Uruk, Nippur, and Kish— with Ur, Uruk, and Kish probably being the oldest.

It is probably not wrong to state that Uruk (called Erech in the Bible; today called Warka) was the biggest city on earth during the third millennium. From the ruins of Warka, the archaeologists have unearthed eighteen prehistoric layers of settlements dating back to the fifth millennium.

About 2700 B.C., Uruk, the mightiest city of Babylonia, had the most tremendous system of fortifications known to the world until the rise of Nineveh: the double-ring wall already mentioned, nearly six miles long and fortified by 900 towers. It was believed to be the work of King Gilgamesh, the legendary Mesopotamian hero. Gilgamesh's walls encircled a city area of approximately two square miles. The fortifications also enclosed suburbs, palm groves, and two large temple areas, the latter separated from the rest by special walls. The dimensions of these temple areas contrasted remarkably with the narrow lanes of the residential section.

The estimated number of inhabitants ranges from 50,000 to 150,000, which lends probability to the assumption that Uruk was the world's first, and for a long time the only metropolis, as we understand the word today.

The larger of the two temple-cities of Uruk, the sanctuary of the mother goddess Innana, was built about 2800 B.C., three hundred years prior to the construction of the large pyramids in Egypt. The temples with their tremendous measurements are probably the oldest monumental architecture in the world. The mud bricks, of which they were built, were covered with a layer of clay, into

42

which thousands of nails of burnt clay were placed, their red, white, and black heads arranged in patterns.

The symbol of all the larger cities in the two-river country, the tiered pyramid or ziggurat, arose in the centre of the temple area. These gigantic terraced structures, the tallest and most famous of which was the Tower of Babel, developed out of the artificially created temple-hills of the early days. The ziggurat was the only architectural structure that towered over the city wall; visible from far away, the pyramid spread the message to all the land between the Euphrates and the Tigris. It is here where men excel nature, where they, with their bricks and their pride, have created something that never before existed—the city.

In imagination we may feel the astonishment of an aboriginal nomad when for the first time he beheld such a mass of stone and wood rising from the countryside, a strangely shaped enclosure, crawling with people. Such structures became more and more frequent in the two-river country. Until the end of the third millennium, states in our sense of the word did not exist; the city king was the highest-ranking sovereign. Some cities were entirely self-contained; others were competitive, large ones incorporating smaller ones into their city-state, and power often changing hands.

About 2375 B.C., King Lugalzagesi of Uruk made his city the metropolis of the first large monarchy of southern Babylonia. After about twenty-five years, he was vanquished by Sargon I, king of the city of Akkad, in the north. Sargon was the first to unite under one sceptre the entire two-river country and parts of the countries we know today as Syria, Iran, and Turkey. So was created the first large empire in history—a coalition of city-states, each of which retained its own priest-king.

Uruk's importance declined, but it remained a large city even while in the north the sun of Babylon rose. It did not sink into oblivion until the fifth century of the Christian era, when the river Euphrates, the giver of life, changed its course and the desert moved in.

It is remarkable how many cities from ancient times to our day deteriorated because they became cut off from their water supplies. Very early in history, this fate befell the port city of Eridu, built where the Euphrates and the Tigris entered the Persian Gulf. During the second millennium B.C., the mud which both rivers carry into the sea had pushed the shoreline so far out that Eridu had to be abandoned.

In the north of ancient Babylonia, the city of Kish played the same rôle that Uruk played in the south. The city was located in a large wheat-growing area. Its wall was reinforced in the west and in the east by additional fortifications. On either side of the river

temple towers arose, which were surrounded by park grounds and smaller temples. The ruins of a royal palace, which apparently was already abandoned by 3000 B.C., testify to the age and size of the city.

The part of Kish lying south of the Euphrates was, during the seventh century B.C., included within the outer fortification system of Babylon and turned into a suburb of Nebuchadnezzar's metropolis. The northern part had long since fallen into ruins after the Euphrates had changed its course.

The city of Nippur (today, Nuffar) was in the heart of the two-river country, between Kish in the north, and the cities of Uruk, Ur, and Eridu in the south. Though not large, it was a holy city: the cult centre of Enlil, the chief Sumerian god, from whom the rulers of the cities existing during the fourth and third millenniums B.C. derived their authority.

In Nippur, as in Uruk, the temple area was fenced off by a second wall, and was surrounded by canals with green promenades along their banks. The stepped pyramid arose from a brick terrace with a side length of 558 feet. Monasteries, administration buildings, and storehouses formed part of the temple area.

Again in Nippur, king and high priest were one and the same person, so there was no division between cult and economy. In the early days, men, animals, plants, and the land were the property of the city god and therefore also of his representative on earth, the priest-king.

At a later time, land and animals could also be owned by lesser priests and by an upper class. But the biggest property owner was always the temple, standing for the priest-king, which received sacrificial offerings and taxes paid in the form of wheat, sesame oil, dates, or cattle. The priests administered this wealth to the greater glory of the city god, filled the storehouses around the temple with it, set up marts at the edge of the temple area, and supervised workshops for spinning, weaving, and other trades.

There seems to be no doubt that these priests invented writing, which became indispensable when their memory was no longer up to the requirements of the increasingly complicated temple administration. Sumerian cuneiform script seems to have developed about 2900 B.C.—perhaps simultaneously with Egyptian hieroglyphic writing and with the Chinese characters. The priests engraved into clay tablets all that was of importance for the temple enterprises: how many head of cattle there were, what the offerings and taxes had consisted of, how well the granaries were stocked.

The clay fragments of these five-thousand-year-old records bear evidence that, with the creation of writing, vanity and bureaucracy were also invented. The kings soon discovered that writing was just

44

the right medium for conveying in bombastic words the tale of their deeds, and the priests of Babylon invented red tape long before printing came into existence. They recorded in clay not only the names of the weavers in the temple's workshops—how much wool and how much food had been apportioned to them—but even meticulously noted the amount of barley mush that was fed to a dog.

Perhaps even more than the temple itself, the temple's storehouses embodied the heart of the Babylonian city—for nothing was more essential in those days than stocking supplies against poor harvests and enemy sieges. The city was already, then, that specific creation, characterized by a temple and a wall, which concerned itself with the storage of supplies, and relieved more and more people from being directly involved in the production of food, namely the priests, the artisans, and the artists. Thanks to the division of labour and the specialization made possible under conditions of city living, the highest form of culture could evolve.

One of the most significant early products of this culture was the wheel, an invention which in turn made the further growth of the city possible. The larger the city, the larger the quantities of food that had to be transported over increasingly long distances. There were not many large cities before the wagon came into use, and only a few with millions of inhabitants before the invention of the railways.

When and exactly where the wheel was invented, we do not know. The oldest illustrations of the wheel, showing carts moving on solid wooden discs, have been found in the ruins of Ur, and date from approximately 3000 B.C. We may therefore assume that during the fourth millennium the wheel, if not invented in the two-river country, was widely used there.

It was during this millennium that the Sumerians, the first civilized people on earth, laid the foundations for the culture of city living, of writing, and of trading that eventually was to conquer the world. They turned the densely settled land between the Euphrates and the Tigris into a uniformly cultivated area of cities pastures, gardens, and palm groves. They developed the sciences of mathematics and astronomy, along with astrology and the many similar forms of superstition which still have millions of followers among the people of the Occident. They spun and wove fabrics of wool and linen. They painted and glazed their clay vessels. They worked copper into ornaments, hatchets, nails, and fish-hooks. They divided the year into months, the day—with the aid of the sundial—into hours, and the hours into minutes. In short, the Sumerians invented most of the basic crafts and means of measurement that we nowadays take for granted.

In the course of excavations at Uruk in 1957 a kind of "industrial

site" was laid open, dating back to about 3000 B.C. and consisting of foundries for smelting metals at very high temperatures. Thus we see that the handling of metals reached a high level of accomplishment in Babylonia, while in Europe the Stone Age was just about to come to an end. Large vessels of copper and silver were decorated with chiselled or cast figures representing religious or military scenes; the metal ploughs were combined with a seed funnel; temples and palaces were adorned with metal reliefs, with statues of stone or alabaster, and with ornate rugs. Inside the houses woodwork and reed mats softened the severity of the brick structure.

Centres of civilization in the Middle East.

This all took place in a strictly municipal civilization. By the beginning of the third millennium B.C. the Mesopotamian village was completely supplanted by the temple-city. There was a chain of hundreds of cities along the banks of the Euphrates and the Tigris; about a dozen were of considerable size and ruled over the smaller ones. In the area between Nippur and Baghdad alone, which is less than half the two-river country, archaeologists have counted some 1,800 mounds of ruins, of which perhaps every tenth one indicates a larger city. During the hundred years of recorded excavations not more than fifty ruins in all Asia Minor have been thoroughly explored, so there are many discoveries yet to be made in the two-river country.

But while city culture was now well established, the inhabitants

46

of the rich temple-cities were not yet *citizens* as we understand the word. Each inhabitant, whether priest, warrior, or slave, lived in dependency upon the priest-king whose will was the only existing law. But none of them suffered privation. On the contrary, during the third millennium B.C. they all enjoyed prosperity far superior to the living conditions prevailing in that very area today, a prosperity the like of which many peoples on earth have never attained in their entire history.

A country so fully cultivated and so highly civilized, and boasting such a multitude of rich cities, did not come about again until 2,000 years later in Greece, 2,500 years later in Italy, more than 4,000 years later in central and north Europe. And it was not until the eighteenth century, incidentally, that the inhabitants of Berlin outnumbered those of the city of Uruk as it had existed 4,500 years earlier.

Chapter 5

CITIES OF THE DEAD AND OF THE GODS:
MEMPHIS AND THEBES

THE NILE played a less significant rôle in the history of city development than the Euphrates did. Ancient Babylonia was at all times a passageway for goods and for peoples; the isolated location of Egypt, surrounded on three sides by desert, was not conducive to the development of trading centres and also eliminated the need for the farming population to draw close together inside city walls. Accordingly, only a few cities existed in the Nile valley in early times, and they had smaller populations than the Babylonian cities, even though they covered more space.

City culture on the Nile began in Upper Egypt, the southern part of the country, where about 3000 B.C. Hierakonpolis (in Egyptian Nechen) was the capital of what probably was the first statelike alliance on African soil. Later, about 2850 B.C., some twelve miles south of present-day Cairo, King Menes founded the magnificent residential city of Memphis (in old Egyptian, Menfe; in the Bible, Noph; today, Mit Rahina). Its location at the southern tip of the Nile delta, Egypt's most fertile area, was ideal.

Menes surrounded his city with a great wall of white limestone, which was supposed to secure the inhabitants against rebellious people from the most recently subdued parts of the country. The sanctuary of the god Ptah and two royal palaces arose in the centre of the city.

During the Old and the Middle Empire, approximately from 2600 to 1700 B.C., Memphis was the capital of all Egypt; for a long time, aside from Hierakonpolis, it was practically the only city in the country. Here reigned the Pharaoh with godlike omnipotence. Here flourished the plastic arts, literature, and astronomy.

In 671 B.C. King Esar-Haddon of Assyria conquered the old city and carried all its movable treasures off to Nineveh. Memphis fell into complete decline during the third century B.C., when it was defeated and eclipsed by the new metropolis Alexandria.

For centuries the enormous ruins of Memphis served as a reminder of its one-time splendour, but they were eventually used as stone quarries by the builders of Cairo. When Napoleon Bonaparte

48

saw what was left of the mighty metropolis in 1798, he noted regretfully that hardly a trace of the great city remained. However, this was only partly true, for Memphis's City of the Dead had left ruins behind, that still rank among the most gigantic structures on earth: the Pyramids.

The city of the dead was the most remarkable part of the old Egyptian cities, and the strangest modification of the concept of the city. Graves and tombs played such a predominant rôle in Egyptian religion, and therefore had such dimensions that, rather than constituting cemeteries as we know them, they became a city next to the city, frequently on the opposite bank of the Nile or at a half-hour's distance from the city of the living.

The dead were not put to rest in the earth, but actually in a kind of house: a rectangular burial temple of unbaked clay called a *mastaba*. The Egyptian cult of the dead started from the assumption that the deceased lived on in his grave, but only for as long as his body remained intact. This conception led, of course, to the custom of mummification. It is also the reason for the Pyramids, those gigantic funereal fortresses which many Pharaohs had built for themselves so that no one should ever lay hands on their remains— a hope which was frustrated by native robbers as well as by scholars from faraway lands. The structures at which we gaze in awe, the Pyramids of Gizeh, Abusir, Sakkara, and Dahshûr, constituted the City of the Dead of Memphis—architecturally far more impressive than the city of the living.

But while pyramids and camels are closely connected in our mind thanks to the innumerable photos taken by tourists, the builders of the pyramids knew the camel as little as the horse. It seems that the camel was not tamed until about 1100 B.C., while about 2500 B.C., when most of the Pyramids were under construction, oxen and asses were the only available work animals. Man, actually, was the beast of burden who built the Pyramids. Entire cities of barracks were set up at the sites for these harassed slave labourers.

Even the permanent houses in the cities seem to have been more modest in size than those of the same era in Babylonia. The average citizen lived in a windowless shack of mud bricks with a thatched roof, huddling close to his neighbour's place. A few logs, some reed mats, coarse clay vessels, and perhaps a chair represented the humble furnishings.

The houses of the well to do, while not solidly built either, were roomier, and they had lattice windows—without glass. Glass was known in Egypt as early as the fourth millennium, but it was an opaque, soft glass, adequate for the manufacture of jewellery, but not for window panes.

In 450 B.C. Herodotus made mockery of some of the Egyptians'

strange customs, which perhaps could be explained by their isolation:

> There is much that is marvellous and must be admired, and
> their accomplishments everywhere in the country surpass in
> magnitude anything that words can describe . . . In the same way
> as the Egyptian climate is unique and extraordinary, as their
> river behaves differently from all other rivers, so the Egyptians
> themselves frequently differ in their habits and customs from
> other people. To give you an example, their women buy and sell
> in the market place and handle the trading, while the men sit at
> home and do the weaving . . . Men carry loads on their heads,
> women carry them on their shoulders. Women urinate while
> standing, men while sitting. And they ease themselves inside
> their houses, but they eat in the street, because they are of the
> opinion that the unpleasant necessities of life should be conducted
> in privacy, everything else, however, in full view of the world . . .
> Other people live apart from their domestic animals, but the
> Egyptians live with them . . . they knead the dough for their
> bread with their feet, while they work clay with their hands, and
> with their hands they also collect the dung . . . The Hellenic
> people write and add up from left to right, the Egyptians from
> right to left, and they even claim that they are doing it the
> correct way, and the Hellenes do it the wrong way.

The Egyptian city that made the deepest impression on the
Greeks was "Thebes of the Hundred Gates", as Homer glorified
it. The Egyptians called it No-Amun. Today it is called Weset.
Not to be mistaken for the younger and smaller city of the same
name in Greece, Thebes was located in southern Egypt on the
banks of the Nile. About 2000 B.C. it was an important settlement,
and under the Eighteenth Dynasty (1555 to 1330), it became the
capital of the country, which at that time rose to world power.
Noted for its sprawling municipal area that included fish ponds,
meadows, and storehouses, Thebes became famous chiefly for the
two temple-cities on its outskirts, Karnak and Luxor.

The temples of Luxor, with their colourful reliefs which re-
counted the deeds of the Pharaohs, ranked among the most beautiful
of the ancient world. Even today there is nothing on earth compar-
able to the measurements of the Amon temple in Karnak, the city
of the gods. In the temple's middle-section, 134 colossal pillars,
75 feet high and 36 feet in circumference, supported the stone roof
of a hall that was 330 feet wide and 170 feet deep. The roof has
fallen, but the pillars remain, and with them obelisks, statues,
paintings, and reliefs.

Amon, the city god to whom the temple was dedicated, became the god of the empire and king of all the gods when Thebes achieved the rank of capital of Egypt. Thebes remained the religious and cultural centre of the country on the Nile for several centuries— even after 1330 B.C., when the seat of government once more had been transferred to Memphis.

In 663 B.C. Assurbanipal ransacked and destroyed the magnificent city. In a cuneiform text which was found in Nineveh, the Assyrian king boasts:

> I conquered the whole city . . . Silver, gold, precious stones, all the treasures of the palace, colourful robes, linen, marvellous horses, male and female slaves, two large obelisks of shining bronze, even the gates of the temple I carried away and brought to Assyria. A tremendous booty of immeasurable value did I take with me.

And the Biblical prophet Nahum says about Thebes:

> Ethiopia and Egypt were her strength, and it was infinite; Put and Lubim were the helpers.
> Yet was she carried away, she went into captivity; her young children also were dashed in pieces at the top of all the streets; . . . and all her great men were bound in chains.

All that remained of this great metropolis were some pitiful villages, built from the rubble of the demolished city, and the ruins of Karnak and Luxor, at which we still marvel 3,400 years later.

The dimensions of the god-cities of Thebes, the immensity of the City of the Dead of Memphis, are akin to the boldness which prompted Amenophis IV, in 1364 B.C., to carve his capital, Akhet-Aten, out of the desert. This Pharaoh had broken with the powerful priests of Amon in Thebes, because he intended to place the sun-god Aten above Amon—indeed, to declare him the only god at some later time.

And so Amenophis founded his new residence on the Nile almost midway between Thebes and the old capital, Memphis. He named it Akhet-Aten (Horizon of the Sun) and himself Ikhnaton in honour of his god. He indicated the city limits by way of inscriptions hewn into the rocks on both sides of the Nile, and he drew them so wide that they never even came close to being filled with buildings.

Some of the streets were 145 feet wide. Trees, gardens, and ponds adorned the city. The ruins of sun-temples, of three royal palaces, and opulent villas attest to the power which once reigned here. The houses of the average inhabitants were two or three

storeys high and had flat roofs. The centre of the house was not, as in Babylonia, the inside court, but a large hall which was two storeys high and furnished with a skylight. The courtyard was by the side of the house and connected it with the storerooms. The ceilings of the huge rooms were supported by pillars. Each house had an altar and a room for bathing. Walls and floors were covered with stucco and colourfully painted.

When Ikhnaton died in 1352 B.C., only twelve years after the founding of his city, the seat of government immediately shifted back to Thebes, and Akhet-Aten, only half finished, deteriorated. For the first time in history a ruler had made an attempt to rule not from the traditional centre of his country, but from a city specifically built for this purpose (as, more successfully, Peter the Great did from St. Petersburg at a later time); in this instance, the attempt did not survive the ruler.

Many people, however, are still thankful for Akhet-Aten, even if they have never heard of the giant city of the sun-god, for it was here that the famous bust of Queen Nefertiti, wife of Ikhnaton, was found.

THE WEDDING AT SUSA

ANCIENT CITIES did not exist only along the Euphrates and the Nile; one of the oldest in the world was Susa (now Shush, Iran), which spread over four hills in the heart of very fertile lowlands on the southern edge of the Persian highlands.

Susa, which according to some estimates developed about 4000 B.C., at first was the capital of the country of Elam, the eastern neighbour and sworn enemy of Babylonia. The thrust of the Elamites toward the Euphrates and the Tigris led to several wars during the third and second millenniums B.C., wars from which now one, then the other adversary emerged as ruler over both countries.

As a city, Susa did not reach its peak, however, until it was ruled by the Persian kings. Darius I, who reigned from 522 to 486 B.C., made Susa the metropolis of his country; in the ancient burgh he erected a palace lavishly decorated with gold and marble.

"All the affairs were conducted from here by just a few officials, after the king had instructed everyone what to do and had given everyone the power he needed," wrote Xenophon, the Greek historian and military leader. And Susa became the centre of a gigantic empire which included today's Iran, Iraq, Syria, Turkey, and Egypt.

It was so hot in Susa during the summer months that the Persian kings escaped to two mountain residences: Ecbatana, a city ringed by seven concentric walls, and Persepolis, the tremendous palatial city built by Darius I. Strabo, the Greek geographer, reports how the rest of the citizens of Susa protected themselves from the heat:

> Though fertile, Susa has an excessively hot climate. For that reason they pile two yards of earth on top of their roofs; due to this weight, they have to build their houses long yet narrow, because they have no long beams; but they would indeed be much better off with roomy houses on account of the smoke.

The capital of the Persian empire surrendered in 331 B.C. without resistance to the advancing Macedonian armies under Alexander the Great and to the conqueror fell immense treasure, including

precious stones and some 1,310 tons of gold and silver amassed by the Persian kings.

Seven years later, in 324, the city witnessed one of the strangest events in history: the wedding at Susa. On his return from India, Alexander the Great proceeded to make a dream come true—the unification of the Orient and the Occident. He did this by way of a Greek-Persian mass wedding.

The conqueror himself wedded Statira, the daughter of the king; his marshals and generals were given the daughters of the Persian nobility, and more than 10,000 Macedonian soldiers were married to local girls. Each couple received a dowry and other rich gifts from Alexander; the festivities lasted for five days; and the princes of Europe and Asia sent their representatives to Susa, where for a few days the heart of the world was beating.

Darius' palace was too small for the nine thousand guests at Alexander's wedding feast, so the king had a tent set up. Of richly embroidered cloth, and supported on pillars encrusted with precious stones, it had a circumference of approximately 2,500 feet. For the feast a long table was laid. On one side the hundred divans of the chief bridegrooms were lined up. Alexander's divan, in the centre, rested on legs of gold; the others rested on legs of silver.

Two years later Alexander's empire began to disintegrate; but Susa existed for 1,700 years more. During the fourth century of the Christian era, when the Sassanids ruled in Persia, the city was built into a gigantic fortress against the Arabs. Its longest radius measured more than twelve miles. One quarter of the city area was covered with armouries and military installations. The population consisted mainly of former inhabitants of the devastated Roman provinces in the East, who had been gathered here to work in the king's workshops.

In the fourteenth century of the Christian era Susa was still the centre of a flourishing silk, sugar, and orange-growing area. Today it consists of a few mounds of ruins, but no other city has ever lived so long a time as Susa, the capital of Elam and Persia—5,400 years.

Urban cultures much older than the earliest European cities developed in parts of Asia that were remote from Babylonia.

There are, for instance, the ruins of Anau, not far from Ashkabad, east of the Caspian Sea in the Turkmen Soviet Republic. Even though the Soviet Union may not be able to boast of possessing the oldest city on earth, nevertheless, of the four layers of settlements that have been excavated at Anau, the oldest has been dated as far back as 3500 B.C.

Again, on the lower Indus River, in today's Pakistan, there is the

remarkable city of Mohenjo-Daro, whose ruins were discovered in 1925. Archaeologists have laid open an area of ruins about one square mile in size, with fragments of still-standing houses about 26 feet high. This area gives us a clear picture of the large and highly civilized city which was at the height of its development 4,500 years ago.

Mohenjo-Daro consisted of roomy houses of two or more storeys, which, with their bases of from 83 to 179 square yards, far exceeded the scale applied in public housing in our time. Each house had a kitchen, a bathroom, and a toilet. As in Babylonia, the centre of the house was the courtyard; from it all rooms could be reached; the yard itself was accessible from the street only by way of a narrow and crooked passage.
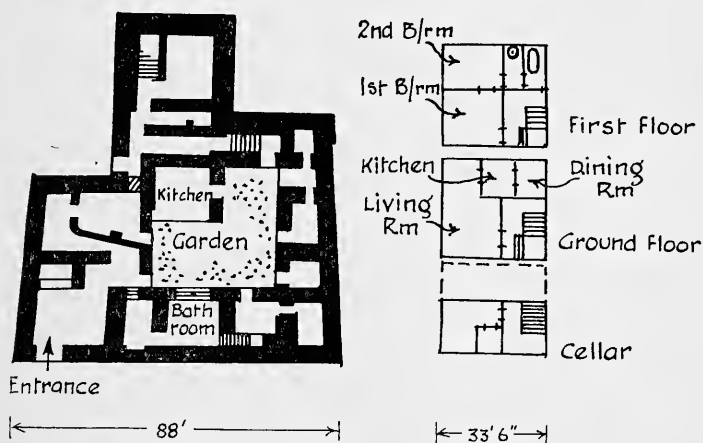
Compare the spaciousness of this house in Mohenjo-Daro (left) with the tiny rooms making up an apartment in a modern block of flats (right).

The houses were built along lanes which were from 5 to 29 feet wide and were constructed according to specific plans, with rectangular intersections. The city was divided by a main street 2,620 feet long and 36 feet wide, which extended from north to south, and was flanked by shops and hostelries.

The largest buildings in Mohenjo-Daro were, besides a palace that was 216 feet long, the granaries and a large public bath, which was equipped with a warm-air heating system, steam baths, and a swimming pool of 23 by 39 feet. The city's many fountains and its extensive water-supply and drainage system were unique in the ancient world until the rise of Rome.

55

The population of Mohenjo-Daro, estimated at 70,000, earned their livelihood to some extent by farming and cattle raising, but mainly as artisans and tradespeople. Craftsmanship was highly developed. Utensils for the house, weapons, and ornaments of copper, bronze, silver, gold, and glass were made with great skill. Semi-precious stones and ivory were worked. The assumption that about 2600 B.C. there was already a lively trade between Mohenjo-Daro and Babylonia is borne out by the many findings in both countries.

Relations with the Sumerians, the oldest people of high culture in the two-river country and probably on earth, seem to have been very close. It is possible that the cities in the Indus valley, of which Mohenjo-Daro was the largest, began as Babylonian colonies. During the fourth millennium, ship travel from the Euphrates into the Persian Gulf and on to the Indus delta probably did not offer insurmountable difficulties.

Nevertheless, many important points about Mohenjo-Daro remain a mystery. The pictorial script which the inhabitants left behind has not yet been deciphered. We have no traveller's report or legend to give us any information about the life and death of this city. We do not even know what its name was during its lifetime. Mohenjo-Daro (Place of the Dead) is simply the name the natives

THE OLDEST CITIES

	Country then	Country today	Approx. Time
Jericho	Canaan	Jordan	5000 B.C.
Ur	Babylonia	Iraq	5th millen.
Uruk	Babylonia	Iraq	5th millen.
Susa	Elam	Iran	4000 B.C.
Hierakonpolis	Egypt	Egypt	4000 B.C.
Kish	Babylonia	Iraq	Beg. 4th mill.
Nippur	Babylonia	Iraq	Beg. 4th mill.
Eridu	Babylonia	Iraq	Beg. 4th mill.
Lagash	Babylonia	Iraq	4th millen.
Anau		Russia	3500 B.C.
Troy		Turkey	End of 4th millen.
Mohenjo-Daro		Pakistan	3000 B.C.
Memphis	Egypt	Egypt	2850 B.C.
Assur	Assyria	Iraq	2500 B.C.
Anyang		China	2000 B.C.

use now. Moreover, the rising of the underground water level and the river have made the oldest layers of the settlement, Vineta, inaccessible to archaeologists.

After having prospered for one and a half millennium, the great city met a violent death about 1500 B.C. It was probably conquered and destroyed by the Aryans, who swept out of Persia.

The Aryans, who later established the culture of India, were at that time nomadic cattle raisers. As such, they abhorred the city— the same attitude that the Israelites had toward Jericho.

Still other ancient cities might be mentioned. For example, Hattusas (now Bogazköy), from 1550 to 1200 B.C. the capital of the Hittite empire in Asia Minor, a gloomy mountain burgh with fortress-like palaces, which was destroyed by the so-called Sea Peoples during their big migration; or Anyang, at the lower course of the Yellow River, the oldest Chinese city, and during a later period the residence of the kings of the Shang dynasty, who had their palaces built from the same clay as the most humble living quarters of their subjects.

One may, of course, have different opinions about the significance of any of the cities we have so far examined, and it is quite possible that somewhere cities may lie buried that are older than Jericho and Ur—perhaps beneath the innumerable mounds of ruins which are as yet untouched by the spade, or in the mud of those Asian rivers where not even a mound serves as an indication.

But even if there should be surprises in the future, a few facts characteristic for all the ancient cities may now be stated. There are four basic types:

1. The fortress—a city with especially strong walls and in most instances a citadel: Jericho, Troy, Tiryns, Ecbatana.
2. The cultural centre, the temple-city: Nippur, Thebes.
3. The seat of government: Susa, Memphis.
4. The trading centre—river or ocean port or crossroads of caravan routes: Ur, Eridu, Mohenjo-Daro.

A cultural centre was often combined with a seat of government, as in the great Mesopotamian cities, in Thebes, and in Akhet-Aten. Most cities had the characteristics of a fortress to begin with. Uruk, the first metropolis on earth, and later Babylon, combined all four types.

There were several aspects in which the old cities corresponded: *In climate*. Without exception they were situated far more to the south, in warmer countries, than modern centres of city culture. Only the mountain cities Hattusas and Ecbatana, as well as Anyang in the Far East, knew snow and frost. The winter temperatures on

the Euphrates, Nile, and Indus rivers equal those which Europeans and Americans know in summer, while in July the areas of the river mouths are among the hottest on earth, with a mean temperature of 86 degrees and top readings as high as 122 degrees in the shade.

In location. The ancient cities were surrounded by farm land, where rich harvests made the development of a new man possible: the man who eats without having to gather or produce his food. Most developed in river valleys where the recurring floods assured fecundity; others at the mouth of a river (Eridu) or in an oasis (Jericho and Anau). The location of some cities may have been determined not so much by the fertility of the soil, as by the aim either to find protection against other peoples or to dominate them. Jericho, Troy, Memphis, Hattusas are examples.

In living conditions. One lived better in those ancient cities than one does today in thousands of cities of the non-white world. Nowhere was there such overcrowding or such unhygienic conditions as exist in present-day Calcutta, for instance. The housing comfort in Ur or in Akhet-Aten, and the sanitary installations of Mohenjo-Daro put most of the tenement buildings of the nineteenth century to shame; and as for space, we have in our modern apartments much less of it than the inhabitants of those cities of four thousand years ago.

In appearance. Most of the cities had walls as their armour and temples and palaces as their heart. With the exception of Mohenjo-Daro, palatial and cult buildings covered a very large part of the city area—in Egypt, the largest part.

This, then, was the city: a massing of people on fertile soil, made possible by the invention of farming, protected by the invention of walls, welcomed as a means of satisfying the innate human desire for social relationship. Those who crowded together and were freed from the struggle for food, were the specialists and exponents of culture: the craftsmen, artists, scribes, and priests.

The city was a centre of cult and culture, a market place, a defensive alliance; it provided a comforting closeness, a heretofore never experienced feeling of security, a feeling of "this is where you belong". The agglomeration of people made it possible to deal with architectural problems and political tasks far exceeding any that would ever confront isolated hunters, herdsmen, or peasants.

The display of power and grandeur was considered essential, whether in the form of temples for the greater glory of their gods, in the shape of palaces for the glorification of their representatives on earth, or in the harmony of temples, palaces, walls and pinnacles for the distinction of the entire city. A city was in one sense a

fanfare going out into the land: We are the city people; this is what we have accomplished.

Long and eventful was the road that led to the city of today, the city that is no longer a fortress, that is holy in rare instances only, that is not always a cultural centre—but that assuredly is an effective and purposeful association of producers and consumers, and also a constantly growing beehive of people.

PART THREE

THE COSMOPOLITAN
CITIES OF ANTIQUITY

THIS WAS BABYLON

MILESTONES ON the road of the city's development were the giant cities. None was more glittering in its arrogance and its depravity than the very first: Babylon, "the mother of harlots and abominations of the earth".

Probably no other metropolis in history has been the object of such hatred and scorn. As one reads the outpouring of fury against Babylon of the prophets Isaiah, Jeremiah, Daniel, and Moses, and in the Psalms and the Revelation, one may readily ask how such a degree of hatred could arise.

Bab-ilu means "Gate of God". At about the end of the third millennium, Babylon grew on the narrow strip of land in northern Babylonia between the Euphrates and the Tigris. It was a late-comer among the cities of the two-river country.

King Hammurabi, who reigned from 1728 to 1686 B.C., raised Babylon to the status of capital of Mesopotamia, whose approximately three million inhabitants he united under his sceptre. Only from then on, therefore, should the name Babylonia really be used. Hammurabi led his empire to new economic and cultural heights, and he graced his capital with many temples and a large royal palace.

Although we know hardly anything about the appearance of the city at this particular period, we know a good deal about its ruler.

Hammurabi became famous not only as a city builder and statesman, but even more so as the creator of the first important code of law. Incised on an eight-foot column of stone, the Code of Hammurabi was found in Susa in 1902. Using the local laws of the kings of Ur, Akkad, and Nippur as models, the Babylonian king formulated criminal and civil laws which 2,200 years later still had an influence on the corpus juris of the Byzantine emperor Justinian, and thus also on our own concept of law.

Hammurabi introduced four important principles. He established a uniform law for a large empire. He replaced personal revenge with punishment by the state. He proclaimed the responsibility of the state to protect the weak from the strong. He permitted the punishment of an individual only if his guilt was clearly proved.

The people were divided into three classes: the priests and

officials, the free men, the slaves. The Code granted two privileges to the first class: its members were permitted to avenge, on the spot and in kind, a bodily injury; and anyone doing them any harm or committing a crime against them was punished more severely than he would have been had the crime been committed merely against a free man or a slave. On the other hand, the punishment meted out against a priest or an official, if he committed an offence, was much harsher than usual.

Hammurabi's principle of "an eye for an eye" was applied with a brutal literalness. The eye that glimpsed a forbidden secret was cut out. The hand that committed a theft was cut off; the same happened to the hand lifted against a father, or the hand of a physician who caused a patient's death by performing an unsatisfactory operation.

Moreover, if an architect built a house so negligently that it toppled down and perchance killed the owner's son, the architect's son was put to death.

Incarceration was not used as a punishment. The commonly inflicted punishments were fines in money, expropriation, mutilation, exile, or death. The death penalty was decreed not only in murder cases, but also for major robbery, flight to avoid public service, serious cases of libellous accusation, incest, and adultery.

The marital laws of this presumably immoral city were strict. A marriage was arranged by the parents of both young people. The bride's parents received purchase money; on their part they gave the bride a dowry consisting of household utensils, cattle, or landed property.

The father had unlimited power over his children. It was up to him whether he married his daughters off, dedicated them to temple service (where they lived quite immorally according to our standards), or sold them as concubines. It was not considered adultery for a married man to take on a concubine, since the concubine did not have the rights and privileges of a wife.

If a man wished to divorce his wife, all he had to do was announce his intention and the marriage was dissolved—and Hammurabi's method is still followed in the Islamic world. If the wife had done nothing objectionable, the husband had to leave her the children and pay her back her dowry. However, if she had neglected her duties, the man could degrade her by making her his slave.

When a woman wanted a divorce, she had to prove that her husband had treated her cruelly or neglectfully. If her accusations were unfounded, she was drowned. On the other hand, if the husband had committed adultery by consorting with another man's spouse, and not merely with a slave girl or concubine, the wife had the satisfaction of seeing her husband and his paramour drowned.

64

Even in Babylon, then, women were not without the protection of the law.

The children of priests and officials received thorough instruction in writing, reading, arithmetic, and astrology. The old culture of the two-river country, which under Hammurabi concentrated in his capital, now became imbued with a spirit which one must call highly progressive for that time.

Becoming the cultural and economic centre of Asia Minor, Babylon remained so with only a few interruptions for 1,400 years in spite of changing régimes.

Two circumstances favoured the sudden growth and the long-lasting prominence of the city: the caprices of the Euphrates and the influence of the god Marduk.

The Euphrates, whose changes of course had already spelled disaster for the great cities Ur and Uruk, moved away from Kish shortly before Hammurabi's time, and thus paralyzed the old metropolis of northern Babylonia. The newcomer, Babylon, about eight miles west of Kish, was the gainer.

As for Marduk (Bel in Greek; in the Bible, Merodach, meaning Calf of the Sun God), it was the priests' ambition to raise their city god above those of the neighbouring cities. They glorified his attributes and his power; they interpreted adversities visited upon the other cities as insufficiencies of their gods, and in their stead recommended Marduk; they provided expressive symbols and colourful ceremonies in order to enlist followers for him.

Due to their great zeal, and thanks to Hammurabi's political influence, the priests spread the glory of Marduk's name so success-fully that he finally was acknowledged as the god of the empire and the king of the gods. When any Babylonian king was crowned, he now grasped the hands of Marduk's statue in Babylon's large temple; this made him omnipotent.

Marduk's rise was such a calamity for Nippur that the city began to waste away. It fell into complete decline during the first millennium B.C. First Kish, and now Nippur strangled by Babylon. Cosmopolitan cities nurture themselves by draining the life-blood from other cities, sometimes even from entire countries. This was later the case with Syracuse and Alexandria, Rome and Paris.

Hammurabi did his part in emphasizing the magnificence of the king of the gods. It may be assumed that he built the large Marduk temple Esangila and the terraced tower Etemenanki; the latter, rebuilt under Nebuchadnezzar, became the Tower of Babel.

Tower and temple survived the holocaust in which the Hittites, who in 1531 B.C. burst forth from Hattusas, turned the rest of Babylon into ashes. The remainder of Hammurabi's empire fell into

c   65

Assyrian hands about 1250, and during an insurrection against the Assyrians in 1239 Babylon was destroyed for the second time.

The fame of Marduk and the zealous efforts of his priests, however, revived the city each time and assured its influence far beyond its political power. Even under Assyrian rule, Babylon remained the uncontested cultural centre; moreover, the Assyrian kings designated themselves as the representatives of Marduk of Babylon.

Then came the disastrous year 689 B.C., which seemed likely to put an end forever to the glory of the Euphrates metropolis. King Sennacherib of Assyria wrested Babylon from the Elamites, who then ruled the two-river country, and he completely levelled the great city. All the inhabitants were slain, all houses torn down, the Marduk temple and the terraced tower were smashed and the rubble thrown into the nearest canal; a load of Babylonian soil was put on ships and transported north, where, in a symbolic gesture, the soil was thrown to the winds. And, finally, Sennacherib diverted one of the canals into the city, where its waters washed away the last remaining debris.

The Assyrian kings resided at Nineveh, the splendid city in the north on the river Tigris, and Babylon, so everybody thought, was gone for good. Sennacherib, however, was assassinated in 681 B.C. Marduk's priests did not fail to interpret his violent death as an act of retaliation, inasmuch as Sennacherib had broken with the traditional veneration of Marduk. Sennacherib's successor, Esar-Haddon, who had ransacked Memphis, began to rebuild Babylon. In 648 B.C., Esar-Haddon's successor, Assurbanipal, who had destroyed Thebes, conquered the once again mutinous city of Babylon and destroyed it once more.

And so it seemed for the fourth time that the fate of the metropolis had been sealed. But in reality, its most magnificent development was yet to come. Nabopolassar, who reigned from 626 to 605, defected from the Assyrians; joining forces with the Medes, he destroyed Nineveh as completely as seventy-seven years earlier Sennacherib had razed Babylon, and then he reconstructed the "Gate of God" as the capital of the new Babylonian empire.

His son Nebuchadnezzar reigned from 605 to 562, and it was he who, in a tremendous drive, almost in a frenzy of building, turned Babylon into a cosmopolitan city, the like of which has never existed since, with the exceptions of Rome and perhaps New York. He rebuilt, on a more gigantic and magnificent scale, the Marduk sanctuaries which Hammurabi had originally built. He was determined to excel the barbaric splendour of the hated and now exterminated Assyrian metropolis, Nineveh; and now, shortly before the decline of Babylonian culture in the two-river country

where the city had begun its existence, the most sparkling and most infamous city on earth grew up to its full splendour.

"Is not this great Babylon, that I have built for the house of the kingdom by the might of my power, and for the honour of my majesty?" Nebuchadnezzar asked, according to the prophet Daniel, and Daniel replied, "Thy greatness is grown, and reacheth unto heaven and thy dominion to the end of the earth."
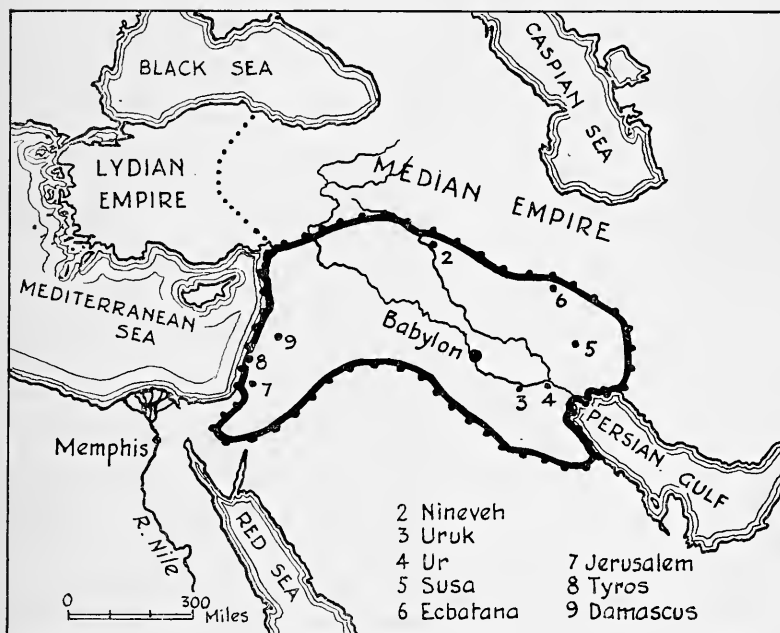

Empire of Nebuchadnezzar.

Nebuchadnezzar added Assyria, Syria, and Palestine to his empire. In 597 he conquered Jerusalem. Ten years later he destroyed it completely after a revolt occurred in the city, and forced the Jews into Babylonian exile. This was what provoked the dreadful hatred which reveals itself in the books of the prophets. The 137th Psalm ends with the horrible condemnation: "O daughter of Babylon, who art to be destroyed; happy shall he be that rewardeth thee as thou hast served us. Happy shall he be, that taketh and dasheth thy little ones against the stones."

Nebuchadnezzar built, and everything he built was magnificent and gigantic. His unprecedented architectural achievements were

67

made possible by his country's natural wealth and its power over the subjugated neighbour people, and not least by his absolute sovereignty over his subjects; the person, labour, and property of each inhabitant of his empire were unreservedly and unquestionably at the disposal of the god-king. He summoned them and their donkeys, oxen, horses, and carts to build walls, dams, reservoirs, and canals, splendid streets, temples, and palaces. Jews and Egyptians, Syrians and Phoenicians joined the labour force.

Nebuchadnezzar protected Babylon with a tremendous system of fortifications that included five walls. The inner city was surrounded by a double wall with earth fill between, measuring ninety feet in thickness. This monstrosity of a wall, pierced by one hundred bronze gates, extended around a rectangular area on both sides of the Euphrates. Its extension from west to east was more than a mile and a half, its length in the north-south direction almost a mile—a total area of about one and a half square miles—which was less than that of Uruk 2,000 years earlier.
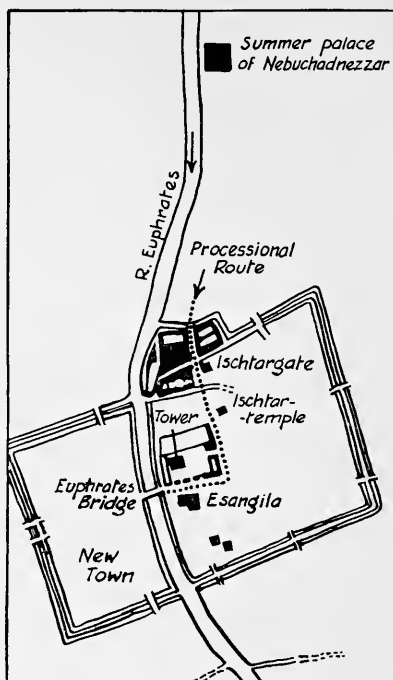
Babylon: City centre.

In view of such modest dimensions one may well wonder how the impression arose that Babylon was a giant city, especially when many encyclopaedias and archaeological books still adhere to these measurements. Apparently, however, the double wall enclosed only one part of the city, the smallest though most important part: the nucleus of the city with the temple area. The main burgh or citadel of Babylon was outside the inner city, and so was Nebuchadnezzar's summer palace. These and other buildings on the Euphrates' east bank were encircled by another wall which we may call the middle wall. It surrounded an area of 3.4 square miles

We know that the ancient city of Kish was integrated into Babylon, and that the city of Borsippa (today, Birs Nimrud), located about fifteen miles to the south of Babylon, more or less belonged in the orbit of the metropolis.

So it seems there was an outer or fourth wall, of which only scant remains have been found. Enclosing the once independent Kish, a number of suburbs with half-rural character, fortifications, canals, dams, and reservoirs, Babylon seems to have had an ultimate area of some 116 square miles.

The over-all size of the metropolis would not seem surprising under modern conditions; but the city of our time does not have walls. A walled city area of the size of Babylon probably never again existed, and even Rome, the ancient city of millions, did not measure up to Babylon as far as expanse is concerned.

But it does not seem likely that Nebuchadnezzar's capital was a city of millions, if one takes into consideration that the outer city area was not uniformly settled. It is probably reasonable to assume that 300,000 to 400,000 people inhabited Babylon at the time of the Jewish Exile—and that would be by far the biggest assemblage of people since the beginning of the world.

In addition to the two walls around the inner city and the middle wall and the wall around the outer city, Nebuchadnezzar had a fifth fortification built: the Median wall, north of Babylon, extending from river to river in that region where the Euphrates and the Tigris came closest together. It was almost 19 miles long and was intended to halt the Medes, who threatened the country from the north-east.

The five gigantic walls were only the beginning. Nebuchadnezzar also dug four canals from the Euphrates to the Tigris, two canals running parallel to the Euphrates, and north of Babylon a reservoir for control of the floodwaters. According to Herodotus, this artificial lake had a surface of 154 square miles. The two halves of the inner city, which were separated by the Euphrates, Nebuchadnezzar connected by means of a stone-and-wood bridge. At night the wooden sections were drawn up to prevent the Babylonians from crossing over and stealing from one another.

Erecting his summer palace in the outer city, Nebuchadnezzar enlarged the south castle of the inner city into his main palace. From the outside it seemed a defiant, gloomy fortress. The palace inside was decorated with reliefs of colourful glazed bricks and with treasures from all corners of the known world. The throne room measured 148 by 59 feet. Continued additions expanded the castle to a veritable palace-city, and presently there was constructed in it one of the Seven Wonders of the World—the Hanging Gardens of Queen Semiramis. Though these gardens actually had no connection with the legendary Queen Semiramis, and did not "hang", they were remarkable nevertheless.

According to tradition, which to a great extent is borne out by the excavations, Nebuchadnezzar's wife, who was born in Persia,

69

yearned in the Babylonian plains for the mountains of her homeland. Sparing no expense to simulate a mountainous landscape, the king built for her a flight of roof gardens which rose skyward, the uppermost at the same level as the towers of the inner wall of the city. The gardens, lavishly planted with trees of all kinds, were supported by arches built of bricks. Beneath them were large rooms which the rays of the sun never reached and which were additionally cooled by the artificial irrigation of the gardens.

Nebuchadnezzar's roof gardens were indeed a masterful construction, though it is difficult to understand why they were counted among the wonders of the world, while the great Tower of Babel was left out.

Go to, let us make brick, and burn them throughly. And they had brick for stone, and slime had they for mortar.
And they said, Go to, let us build us a city and a tower, whose top may reach unto heaven; and let us make us a name, lest we be scattered abroad upon the face of the whole earth.
And the Lord came down to see the city and the tower which the children of men builded.
And the Lord said, Behold, the people is one, and they have all one language; and this they begin to do: and now nothing will be restrained from them, which they have imagined to do.
Go to, let us go down, and there confound their language, that they may not understand one another's speech.
So the Lord scattered them abroad from thence upon the face of all the earth: and they left off to build the city.
Therefore is the name of it called Babel; because the Lord did there confound the language of all the earth: and from thence did the Lord scatter them abroad upon the face of all the earth.

This is the Biblical account of the building of the Tower. As for the confusion of tongues—many tongues filled the air of Babylon, as happens in any cosmopolitan city. If in the Bible special bitterness is directed against the Tower, it was perhaps motivated by the fact that the Tower appeared to the Jews as a symbol of arrogance.

Vanity was without doubt a factor in Nabopolassar's and his son Nebuchadnezzar's endeavour to reconstruct the ruins of Hammurabi's ziggurat, a vanity which manifested itself not only in the height, but even more so in the proportions of the new step pyramid.

The terraced temples of the old Babylonian cities were more wide than high, more hills than towers. Nebuchadnezzar's new structure retained the steps, but they were now so narrow and so steep that they could hardly be recognized as steps any more. The base of the Tower alone was 109 feet high, higher, that is, than the entire

ziggurat of Ur, or twice the height of today's four-storey apartment houses, and the second step retreated from the first by very little, thus creating the impression not of a pyramid, but rather of a giant block, approximately 295 feet long, 295 feet wide, and 295 feet high.

Without actually breaking away from tradition, a tower had suddenly grown out of the terraced structure—the first great tower on earth, crude in appearance, like a giant bunker. If we consider how slender the towers of our time are, the tremendous mass of this structure, blue, glazed, and crowned with a golden roof, even today would dominate the view of almost any cosmopolitan city.

The steps of the Tower were designed to enable Marduk to descend from the heavens to his people. According to its official function, therefore, the Tower was a sacred structure, but in a cuneiform text Nebuchadnezzar revealed that it was his desire to "compete with the heavens". That is why he built the Tower straight up, using the steps only as a guise. And so it seems that the Tower proclaimed not only Marduk's power, but also the power of his representative on earth and the magnificence of his metropolis. Massive and pompous, the Tower put the finishing touch to Babylon's arrogant claim of being the navel of the world.

The city substantiated this claim by its religion. The Babylonians did not visualize the earth as a ball or a disc, but rather as a pyramid of seven terraces, with a dome of three heavens above and the flowing ocean around. In this image, Babylon was situated on the uppermost terrace. In the city of Babylon, Marduk's giant step-tower rose skyward as a diminutive replica of the world pyramid, and appropriately it was named Etemenanki, "Cornerstone of Heaven and Earth".

The world and its replica in Babylon rose in seven steps in acknowledgment of the seven "planets"—the five planets then known, plus the sun and moon. Thus did seven become a sacred number, reflected in the Seven Wonders of the World as well as in the expression "seventh heaven", and that even more durable fragment of Babylon in our time, the seven-day week.

From the 109-foot-high base of the Tower rose the 59-foot-high second terrace; an impressive flight of stairs leading straight up to it without a turn. The next four terraces, each approximately 20 feet high, and the 48-foot temple which made up the highest step, were accessible only to the priests.

> The highest tower contains . . . the great temple of the gods with a large couch with covers and bolsters inside, next to which a golden table is placed (Herodotus reports). There is no effigy of a god, and no mortal ever spends the night there, except

occasionally a woman, alone—one whom the god has chosen from the daughters of the country. The priests claim that the god in person visits the temple and rests upon the bed. This, however, I do not believe.

It was here, too, that the priests explored the course of the stars. They divided the heavens into twelve zodiacs, they were able to calculate the occurrences of eclipses of the sun and the moon, and they knew the orbits of the planets. But they were not motivated by scientific inquisitiveness as we know it today, rather by the singular desire to gather foreknowledge of human fate from the course of the stars. Astronomy was fully in the service of astrology—Marduk's priests were the actual inventors of the horoscopes which are daily published in our newspapers.

Yet Marduk's priests did not read the future in the stars only. Predictions from the entrails of slaughtered animals, foretelling the future from the stars, the interpretation of all the uncommon developments in nature, as for instance the birth of misshapen young ones, and finally the interpretation of dreams—all these different methods originated in Babylonia, and each one was systematically and logically developed and integrated in textbook formulations.

The bastion of this superstition, the Tower of Babel, was not the only sanctuary in the city; one of the adjoining, equally walled-in areas contained the temple of Ishtar, goddess of love and fertility, and the magnificent Marduk temple, Esangila, presumably 1,641 feet long, which contained a large golden figure of Bel seated on a golden throne, and next to it a large table also wrought of gold. Herodotus reports that, according to the priests, 800 talents (21 tons) of gold were used for making them.

And finally, the temple area also included storehouses, bazaars, and palatial domiciles for the priests, and adjoining the area were numerous shelters for the pilgrims who from far away flocked into Babylon to take part in the magnificent Marduk processions.

Expressly for these processions, Nebuchadnezzar had built a marvellous street, the like of which has never again been seen. It started in the outer city at the great citadel of Babylon and led through the famous Ishtar gate into the inner city. This mighty double gate was crowned with pinnacles and was covered with blue glazed bricks, from which more than five hundred colourful reliefs of bulls and dragons emerge. The gate's wings were made of cedar wood covered with copper plates.

Passing by Nebuchadnezzar's palace in the inner city, the processional street wended its way south, then turned west and proceeded between the two sacred areas with the Tower and the

Esangila temple to the Euphrates bridge which connected the eastern half of the inner city with the less ostentatious western half.

The street was 73 feet wide and was paved with large stone slabs which had to be brought from the faraway north to the stoneless Babylonian mud land. The most impressive part probably was in the outer city, from the citadel to the Ishtar gate, where the street was flanked by walls that were approximately 23 feet high and consisted of blue glazed brickwork. Yellow reliefs shimmered against this background—rosettes and some hundred and twenty stalking lions, each more than six feet long.

To enter Babylon on this radiant, lion-flanked promenade through the Ishtar gate and then to stand before the monumental Tower which gleamed in seven colours must have created an effect never again achieved by any city builder after Nebuchadnezzar.

It was wholly new and amazing that the fondness for pomp, which so far in city history had been confined to erecting temples, palaces, and walls, now was extended to the streets. The street had never been a major concept in city building; it was a space between two · rows of houses, for passage or for social gathering; streets were dirty, crooked, and as narrow as possible, if only for the reason that one had to be economical with space inside the expensive city walls. In Mohenjo-Daro and in Akhet-Aten, the streets had been allowed more room, but they still remained the mere intervals between villas and palaces. Under Nebuchadnezzar, streets too became testimonials of might and splendour.

On holy days the great processions made their way along the magnificent street on to the Esangila temple and up to the second step of the Tower. The priests carried statues of the lesser gods and from thousands of throats came praise of Marduk—in song of which we know only that it would have been extremely strange to our ears.

Into this city of 53 temples and 1,300 altars dedicated to strange gods, this city of bewildering throngs of people and shrill cries of the market place in twenty different tongues, this city of ostentation and pomp, came the exiled Jews. Their master was Nebuchadnezzar who had destroyed Jerusalem and had desecrated Solomon's temple, where, for Israel, the world's heart was beating. "By the rivers of Babylon, there we sat down, yea, we wept." But they not only wept, they also took heart in their visions of annihilation and God's judgment:

And I will render unto Babylon and to all the inhabitants of Chaldea all their evil that they have done in Zion in your sight, saith the Lord. Behold I am against thee, O destroying mountain, saith the Lord, which destroyest all the earth: and I will stretch

out mine hand upon thee, and roll thee down from the rocks, and will make thee a burnt mountain. And they shall not take of thee a stone for a corner, nor a stone for foundations; but thou shalt be desolate for ever, saith the Lord.

In addition to their bitterness over the destruction of Jerusalem, to their loathing of the Marduk cult, to their resentment of the city's arrogance, the Jews felt disgust over the strangest custom in the metropolis—temple prostitution. Herodotus tells us:

Every woman in the land is obliged once in her life to sit in Aphrodite's temple and accommodate a strange man. Many of them, who did not wish to mingle with the other women, because they were proud of their wealth, drove up to the temple in closed carriages and they had many of their servant girls follow them. But for most of the women it is like this: They sit inside the sacred area of Aphrodite's temple and they have lengths of string arranged as a circlet around their heads—many women together. Some of them are arriving, others are leaving. Small passages are kept open in all directions so that the strangers can walk around and pick out the woman they want. Once a woman is seated there, she may not go home until a strange man has tossed some coins into her lap and she has given herself to him outside the temple. But when he tosses her the money, he must say, "In the name of the goddess Mylitta I call you." The amount of money is of no consequence; whatever it is, she must not reject it—she is not permitted to do so. And the money belongs to the temple. She has to go with the first one who gives her the money and she is not allowed to reject anyone. After she has given herself to him and so has consecrated herself to the goddess, she goes home, and afterward there is not enough money which one might offer her that she would do it again. Those women who attract attention by their beauty and stature soon are on their way home, but the ugly ones often have to wait a long time before they can fulfil the requirements of the law. Many have to wait as long as three or four years.

This custom obviously was based on old fertility rites, or the belief that the most inviolable and sacrosanct has to be sacrificed to the goddess of love, Ishtar, whom Herodotus calls Aphrodite or Mylitta. The ancient idea that sacrifices are necessary and are looked upon with benevolence by the gods merely found a novel and rather extreme expression in the Ishtar cult—and not even the most extreme, if we think of the horrid sacrificial customs in Carthage and in Tenochtitlán.

74

Besides the women who, under the requirement of the law, sold themselves to a stranger, there were many professional prostitutes. They too were in the service of the gods; they were called temple slaves (hierodulen) and supposedly conveyed the blessings and the power of the goddess of love to others. They also had to clean the temple, they wove sacred robes and performed as singers and dancers to the accompaniment of harps, lyres, drums, and cymbals— either in religious festivals or in the houses of wealthy Babylonian citizens. We are told that there were more than ten thousand of these temple slaves in the great city.

"O destroying mountain which destroyest all the earth"—thus Jeremiah addresses Babylon. And Isaiah shouts it into the world: "Come down, and sit in the dust, O virgin daughter of Babylon . . . uncover thy locks, make bare the leg, uncover the thigh, pass over the rivers . . . Thy nakedness shall be uncovered, yea, thy shame shall be seen."
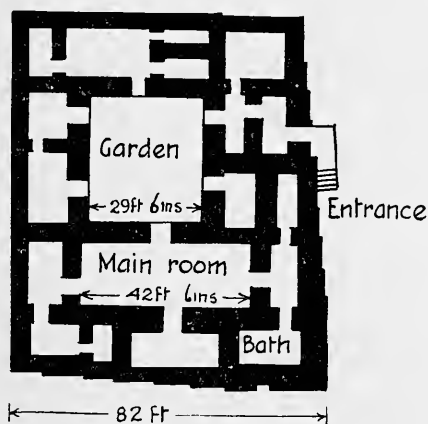
Ground-plan of a Babylonian house.

But Babylon, once the birthplace of justice, was not the "sinful Babylon" through and through. What appeared an outrage to the foreigners, was more or less taken for granted by the Babylonians, something that was self-evident from their religious point of view. In his description of temple prostitution Herodotus emphasized that the women sacrificed themselves for Ishtar's glory, but then never again behaved in an unseemly manner. Most likely, there was —Biblical wrath notwithstanding—much normal and decent every-day living, of which, unfortunately, we know very little, simply because prophets and world travellers habitually do not pay very much attention to everyday events.

The city was full of three and four-storey houses and was criss-crossed by the straight lines of streets, which ran parallel with and perpendicular to the river. Each street was named after a god. In general, the private houses probably were not very impressive, and the streets not very wide. The population was classified as priests and officials; soldiers of the guards; merchants and craftsmen; peasants; slaves.

Their clothing consisted of a linen robe which came down to the feet, another one of wool over it, and a short white outer coat. They wore their hair long, with bandeaux around their heads. They anointed their bodies, wore rings, and carried canes.

Early transport on the Euphrates.

The king and the priests draped themselves in resplendent garments of wool and silk, colourfully embroidered, dyed in precious purple, and shot through with gold threads. Fantastic prices were paid for Babylonian rugs and coverlets embroidered in gold.

The luxuries that abounded in Babylon, the precious materials from every land, and the products created from them by the craftsmen of the metropolis, filled the contemporary world with astonishment. Copper and gold from Egypt, silver from Spain, tin from England, incense and spices from Arabia, purple dye from Phoenicia, wine from Armenia, wool, silk, and precious stones from Persia, aromatics, ivory, and diamonds from India—all of these could be found in Babylon.

Among the more remarkable means of transportation employed

in bringing these commodities to Babylon were the boats that brought wine down the Euphrates from Armenia. These were made of hides stretched around frames of willow withes. Laden with their cargoes, these bowl-like vessels without "fore" or "aft" would float downstream with the current. On board each craft were two men to guide it and one or two donkeys. After reaching their destination and unloading, the boats would be disassembled, their frame would be sold, and the leather coverings would be loaded on the donkeys' backs for the return trip—for of course these craft could not be propelled upstream.

By skiff and by ship, on the backs of camels and donkeys, on carts drawn by oxen and donkeys, the merchandise and raw materials arrived in the city—in a land that was without natural resources and lived on the fertility of its fields, on the skill of its citizens, and on the labour force recruited from the enslaved peoples.

In the sixth century B.C. Babylon was the dominant centre of science, craftsmanship, and technical skill—the crossroads between the Orient and the Occident, the largest banking and trading centre in the world, the banking business being conducted by the priests. It was a cosmopolitan city; by virtue of its power, its splendour, its art, its corruption, it was the quintessential *city*. Perhaps never before and never since has any city so far outdistanced the rest of the world in pomp and grandeur.

It was against this city that the prophet Jeremiah of the enslaved people of Israel thundered: "Call together the archers against Babylon: all ye that bend the bow, camp against it round about; let none thereof escape: recompense her according to her work; according to all that she hath done, do unto her: for she has been proud against the Lord, against the Holy One of Israel." And then: "O thou that dwellest upon many waters, abundant in treasures, thine end is come, and the measure of thy covetousness." And on and on, through many verses. "Declare ye among the nations, and publish, and set up a standard; publish and conceal not: say, Babylon is taken, Bel is confounded, Merodach is broken in pieces; her idols are confounded, her images are broken in pieces."

However, Babylon was *not* destroyed. The Hittites and Assyrians had demolished the city four times prior to the reign of Nebuchad-nezzar, the destroyer of Jerusalem; *his* metropolis, "the mother of all horrors", though subsequently conquered, was not annihilated by the enemies' fire or sword. It still flourished for more than two hundred years and then gradually fell into decline, because political conditions changed—a normal, even comparatively kind, fate for a cosmopolitan city.

And so the Jews were deprived of the triumph they had hoped for. But their hour of liberation came in 538 B.C., twenty-four years after Nebuchadnezzar died, well advanced in years.

In 539 B.C., Cyrus the Great, the founder of the Persian empire, marched against Babylon, defeated the Babylonian troops near Opis on the river Tigris, and laid siege to the city. He finally tricked its defenders: he diverted part of the Euphrates' waters into Nebuchadnezzar's reservoir, so that his soldiers could wade in the river bed right into the centre of the city. On both sides of the river the gates in the walls facing it were wide open!

This was probably the doing of the priests, who were resentful toward King Nabonidus because he did not pay homage to the old gods, while Cyrus had let it be known that he would respect Marduk. The Persian king took Nabonidus prisoner, proclaimed himself king of Babylonia, and incorporated the two-river country into the Persian empire. Babylon, the unscathed metropolis, became the capital of the richest Persian province.

"When I peaceably entered Babylon and with rejoicing and exultation set up residence in the palace of the princes, Marduk the great master turned the heart of the Babylonians in my favour, while I was always mindful of rendering homage to him," Cyrus informs us in a cuneiform text. "My far extended troops moved unmolestedly about. I was glad to concern myself with the affairs of the inner area of Babylon and of all the outlying cities. The citizens of Babylon . . . I freed from the yoke that was not worthy of them."

Even though the Persian king may hardly have been welcomed as a liberator, it seems that he distinguished himself by displaying a degree of tolerance unusual for his times—beginning with the fact that he abstained from destroying, and even from looting the city. He permitted the Jews to return to Jerusalem (an indulgence quite possibly motivated by a desire to win them as allies against the Phoenicians). Many of the exiles exercised their option, others remained in Babylon.

The impact of fifty years of Babylonian exile on the Jewish religion and on the rôle Judaism was to play in the world can hardly be over-estimated. Through their suffering in exile as well as in their experience of a cosmopolitan culture, the dogmatic, severe faith of the small Israelite nation developed the greatness that enabled it to become the basis of a world religion. Next to the Phoenicians, the Jews were most instrumental in transmitting Babylonian culture to the Occident.

The Old Testament, which was written after the return from exile, also quite obviously shows the Babylonian influence: God created the world within the span of a Babylonian week, namely in

seven days; and He sent the same Flood of which the old Babylonian King Gilgamesh reports. The artistic scope of the old Testament, too, may well have been influenced by the encounter with the last and glittering blossoms of the ancient Babylonian culture.

Under the Persian king Darius I, Babylon made two unsuccessful attempts to regain its independence. After a third such insurrection in 480 B.C. King Xerxes ordered the outer wall of Babylon to be torn down; he also destroyed the Marduk temple Esangila, possibly to assuage his bitterness over his defeat by the Greeks in the Battle of Salamis.

Under Darius III, the Persians, with the growing fanaticism of their Zoroastrian religion, destroyed a good many temples in Babylon and probably also the great Tower. We know only that Herodotus still saw it in 458 B.C., while Alexander the Great found it a heap of rubble in 331 B.C., when he entered the old metropolis in the course of his bloody, triumphant expedition through Asia.
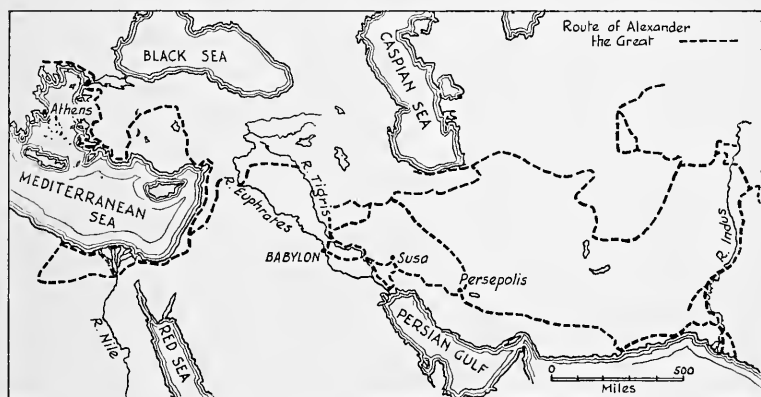
The Persian empire: Alexander the Great ends his historical march in Babylon.

Alexander had anticipated violent resistance by the Persian occupation troops, but the gates of Babylon were flung open for him, the Persians surrendered, the Babylonians decorated him with flowers.

For the Macedonian troops, Babylon was tremendous in its expanse, full of structures that were overwhelming and endless crowds of people. They were enchanted by the boundless luxury and lasciviousness of life in the city, the infinite variety of choice pleasures.

Seven years later, on his return from India after an expedition

that had covered more than eleven thousand miles, Alexander entered Babylon for the second time—at the head of his greatly reduced army. And the glamour of the city and of its name was still so great that he decided to establish his residence and rule the world from there.

He ruled only half a year longer. He hurried the reconstruction of the great Tower, which he had already ordered shortly after taking possession for the first time. Twenty thousand soldiers and workmen had to carry away the ruins of Etemenanki and had to clear the building site; but the new construction never even got started.

Alexander ordered the cypresses in Nebuchadnezzar's gardens to be felled and ships built from their wood; at the same time, 47 battleships stationed in the Mediterranean area were dismantled, transported over land and then assembled again at the banks of the Euphrates, so that they could move downstream toward Babylon. Alexander gave orders to scoop out a harbour basin sufficiently large to accommodate a thousand ships, and he recruited carpenters and sailors from all corners of the world to come to Babylon.

With the aid of this fleet the king planned to set up, along the Persian Gulf, bases from which he would be able to trade with Arabia and India. This fleet was small, however, compared with the one that was under construction in the Mediterranean and being readied for the conquest of Italy, Spain, and Africa.

With the addition of Persian auxiliaries, Alexander reinforced his army in Babylon to a strength of 26,000 men. Clad in purple robes, seated upon a golden throne, he reviewed the army filing past him and executing manoeuvres in Nebuchadnezzar's park. Tens of thousands of spectators thronged along the banks of the Euphrates when the fleet was manoeuvring there.

In the middle of his preparations for the new expedition, in which the king planned to conquer the rest of the world, he fell ill with a fever which keeps the scholars still feuding as to whether it was malaria or pneumonia. Alexander gave his orders from his sickbed and postponed the sailing of the fleet from day to day. News of his illness circulated, with varying degrees of accuracy, among his soldiers, and there were rumours that he was dead. To dispel the rumours Alexander had the doors opened to the men and they filed past his bed. To each of them the king extended his hand and spoke a few words.

On the following day, June 13, 323 B.C., the ruler of the world, Alexander the Great, thirty-two years old, died. His death marked the beginning of the Persian empire's disintegration: for Babylon it meant the loss of its last chance to become the capital of the world. The city never recovered from this blow; its prominence

waned, its population declined, its palaces crumbled. When Seleucus I, one of the heirs of Alexander's empire, in 312 B.C. founded the city of Seleucia on the river Tigris and made it his capital, he thereby hastened the downfall of Babylon, and when the dynasty of the Seleucids decided to make their residence more populous by forcing many citizens of Babylon to move to Seleucia, it was the end. Through such schemes, Seleucia grew during the third century B.C. to a city of 600,000 inhabitants, thus becoming what probably was the largest city on earth until it was surpassed by Rome. In A.D. 164 the Romans destroyed the immensely large Greek city on the Tigris. This was rather advantageous for Ctesiphon, the capital of the Parthians on the opposite bank of the river: the surviving citizens of Seleucia were transferred to Ctesiphon.

A part of Babylon, however, was still inhabited for several centuries and was at times a rather well-to-do small town, surrounded by the deserted and broken magnificence of the city. And there were for a while still pilgrims who brought their offerings to Marduk.

From here on, we have no further reports about the old metropolis. The desert sand drifted over what was left of it. About 1,500 years later, in 1898, the German Orient Society, under the chairmanship of Robert Koldewey, began to remove the sand from the village of Babel. Nineteen years later, this had been completed. Koldewey had found ruins of the great Tower and of the gigantic walls, of the Esangila temple that had been destroyed by Xerxes, and of several one-time residential areas. But he found only one thing relatively undamaged—the magnificent Gate of Ishtar, the gate through which once the impressive Marduk processions entered the city.

He could have found more, had not for generations the ruins of Babylon been used as building material for new cities upstream and downstream. Seleucia, the city that had given the old metropolis its death blow, was built from Babylonian bricks; during the eighth century of the Christian era the caliphs used bricks that bore Nebuchadnezzar's seal for building their capital, Baghdad, and Nebuchadnezzar's royal seal turns up again and again in more than hundred sites of ruins in the two-river country. The number of bricks that had been used to make the Tower of Babylon is estimated at 85 millions—this alone was enough for a few hundred buildings of normal dimensions. So we find that Nebuchadnezzar, the most ambitious city builder in history, even centuries after his death still contributed to city building.

Erratic tyrants have always been stimulated by Nebuchadnezzar's example; from Alexander the Great to Hitler, they were fascinated

by him. "Berlin as the capital of the world will be comparable only to ancient Egypt, to Babylon, or to Rome," Hitler prophesied in 1942.

Nebuchadnezzar's Babylon, though cursed a thousand times, did not die a violent death. But it has been promised—in the Book of Revelation—destruction and death at the Last Judgment:

> And after these things I saw another angel come down from heaven, having great power; . . .
> And he cried mightily with a strong voice, saying, Babylon, the great, is fallen, is fallen, and is become the habitation of devils, and the hold of every foul spirit, and a cage of every unclean and hateful bird.
> For all nations have drunk of the wine of the wrath of her fornication, and the kings of the earth have committed fornication with her, and the merchants of the earth have waxed rich through the abundance of her delicacies . . .
> For her sins have reached unto heaven, and God hath remembered her iniquities.

> . . . And every shipmaster . . . and sailors, and as many as trade by sea, stood afar off, and cried when they saw the smoke of her burning, saying, What city is like unto this great city!
> And they cast dust on their heads, and cried, weeping and wailing, saying, Alas, alas that great city, wherein were made rich all that had ships in the sea by reason of her costliness: for in one hour is she made desolate.
> . . . And a mighty angel took up a stone like a great millstone, and cast it into the sea, saying, Thus with violence shall that great city Babylon be thrown down, and shall be found no more at all.

And then the heavenly hosts sing their triumphant song at Babylon's ruin:

> . . . Alleluia; Salvation, and glory, and honour, and power, unto the Lord our God:
> For true and righteous are his judgments: for he hath judged the great whore, which did corrupt the earth with her fornication, and hath avenged the blood of his servants at her hand.
> And again they said, Alleluia. And her smoke rose up for ever and ever.
> And the four and twenty elders and the four beasts fell down and worshipped God that sat on the throne, saying, Amen; Alleluia.

NINEVEH, THE MURDEROUS CITY

And all my cash I left behind
At the Lamb in Nineveh . . .

THUS BEGAN a German student song often heard in former times. One might assume that a good time was had by all in Nineveh, capital of Assyria, even if there was no inn called the "Golden Lamb" in the city. The prophet Zephaniah, who lived at a time when Nineveh was not yet a desert, also talks of a "rejoicing city".

We do not know whether its inhabitants really led such a gay life, but we may doubt it. Our information about Nineveh is rather sketchy. Herodotus could still stroll around in Babylon and give us a vivid picture of the cosmopolitan city; but Nineveh no longer existed in his time, and nobody would have been able to show the Greek globetrotter even the ruins. The hatred of the entire Orient, which the savage Assyrian kings had drawn upon themselves and upon their strong castle bogging down under all the gold, burst upon them and Nineveh was extinguished from the face of the earth.

Nineveh's development began rather late, its peak was short, its fall sudden.

The greatness of Assyria, the northern neighbour and sworn enemy of Babylonia, originated in Assur, which probably was founded about the middle of the third millennium and was the heart of the country for more than twelve hundred years. The capital, on the west bank of the river Tigris, was towered over by a step pyramid, thirty-four additional temples and several palaces. The largest sanctuary was the temple of Assur, the city god who also was the national god of Assyria. In his honour, the Assyrians pushed ahead in their determination to overpower the entire Orient.

This they did thoroughly, and with a well-devised cruelty and destructiveness. Their religious fanaticism and their lust for power were intensified by envy: The Assyrians, predominantly poor herdsmen in a hilly and less fertile country, looked down with greedy eyes upon the rich plains of Babylonia in the south, and Syria and Canaan in the west.

They created an army of great striking force and developed a new

technique of siege, which enabled them to capture, in a first assault, cities that formerly would have capitulated only because of hunger, perhaps after a siege of many years. All inhabitants were slain outright or tortured to death; the Assyrian soldiers burned their eyes, skinned them alive, and pierced their chests with sharpened sticks. Noble citizens had their arms and legs, noses and ears cut off, and the mutilated rumps were put on display in a cage—a thrill for the pillaging and incendiary-bent troops.

"I conquered the cities, performed a great massacre, destroyed, laid waste, burned with fire," boasted Ashurmasirpal II, who reigned from 883 to 859 B.C. "Living warriors I took prisoners. On stakes outside their city gates I impaled them. Assyrians I settled in the cities. In the great ocean I cleaned my weapons."

1 = Palace of Sanherib
2 = Palace of Assurbanipal
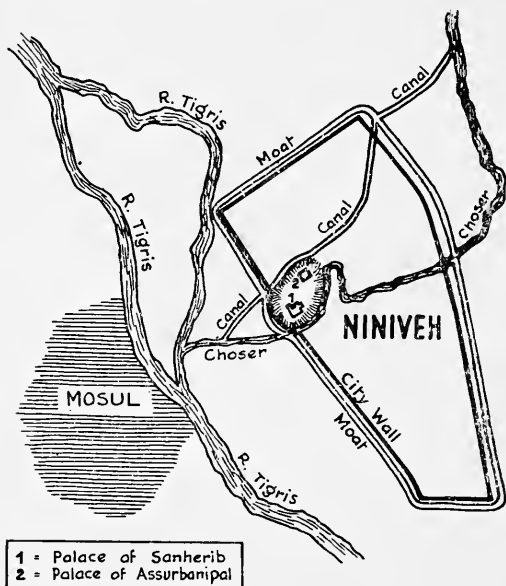
Plan of Nineveh.

The residence of the Assyrian kings moved from Assur upstream on the Tigris to Kalach (also Calah, today's Nimrud), founded during the thirteenth century B.C. During the years 713 to 708 B.C., King Sargon II erected still farther north the "Castle of Sargon" (in Assyrian, Dur-Sharrukin—today's Khorsabad) and made it his new capital, a quadrangular fortress of a little more than one square mile, its walls reinforced by 183 towers.

In Dur-Sharrukin as well as in Kalach were magnificent palaces where all the treasures from looted cities accumulated. Both residences, however, were considerably smaller than many a city they

84

had victimized, as for instance Damascus which had been laid waste in 732 B.C. by Tiglath-pileser III. The Assyrians did not have a cosmopolitan city.

This situation changed only when King Sennacherib, who reigned from 705 to 681 B.C., decided that the little town of Nineveh which now and then had served his forebears as a residence, should be built into a metropolis worthy of his lucrative expeditions. Strategically, Nineveh had an eminently suitable location on the east bank of the Tigris, right where the gushing stream Choser flows into the great river. Extensive constructions were needed to keep its flood swells in check; it filled up the 132-foot-wide moat that surrounded the mighty walls of the city, and it irrigated the city's gardens.
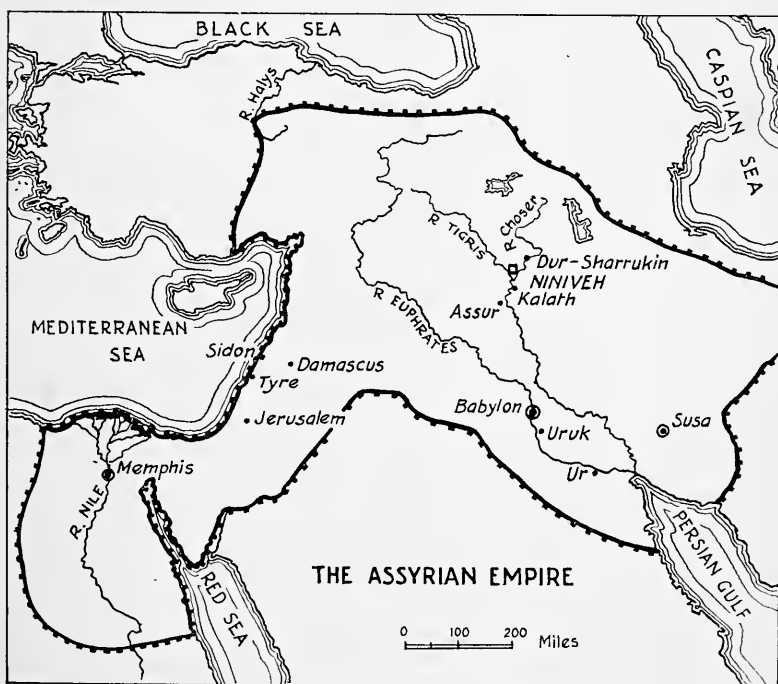
The Assyrian Empire.

Diodorus, the Greek historian, tells us that Sennacherib's walls were 33 feet thick and approximately 100 feet high, and that no fewer than 1,500 towers, each 214 feet high, had risen above them. But Diodorus did not live until five hundred years after the destruction of Nineveh, and the only statement likely to be correct was that the walls were 33 feet thick.

The information Diodorus gives us about the size of the city may also have been erroneous. He talked of a rectangle with a perimeter of 66 miles. Excavations show that the city wall was 7.7 miles long, had fifteen gates, and enclosed an oblong city of 2.6 square miles—an area considerably larger than the inner city of Babylon.

The question arises, however, whether in Nineveh too an inner and an outer city have to be distinguished, so that in the end Diodorus was right after all, as in a similar way Herodotus was correct in his data about Babylon. This seems to be borne out by the prophet Jonah, who calls Nineveh "an exceeding great city of three days' journey". The same prophet, on the other hand, gives the number of inhabitants as 120,000—a figure which seems adequate for the area of 2.6 square miles, if one takes into consideration that the walled-in city contained large vineyards and parks, in addition to temples and palaces.

If one wants to make sense of the expanse of a "three days' journey", one would have to assume that Jonah, whose book was written two to four centuries after the destruction of Nineveh, was thinking of the chain of the three last capitals of Assyria: Nineveh, with Kalach not quite nineteen miles to the south and Dur-Sharrukin about ten miles to the north. The fertile wheat area between these three cities was densely settled and inter-city traffic was quite lively. However, there is no indication that they were as closely inter-connected as Babylon was with Kish and Borsippa, and apparently they never had a wall in common.

In area and number of inhabitants, Nineveh was not much larger than the ancient Babylonian city Uruk had been in the third millennium B.C., and probably not even as large as Nebuchadnezzar's Babylon of about 1700 B.C. But it must have been, for its time, the biggest congregation of people in the world and, most of all, in its deliberate and excessive display of splendour a city the like of which had never before existed.

Sennacherib began by building the large wall, by constructing wide streets through the oldest part of the city (one of a dictator's oldest and most favourite recipes for city building), and by erecting his palace on a hill overlooking the Tigris, after adding height to the hill with a brick terrace almost forty feet high. "I have converted the city into a residence that gleams like the sun," Sennacherib boasted.

On the very same hill, his grandson Assurbanipal (also known as Sardanapalus), who reigned from 669 to 633 B.C., built a palace which in splendour surpassed even the one that Sennacherib had built. It was here that the Assyrian king founded his famous clay-tablet library, which is our most valuable source of information concerning the history and literature of the ancient Orient. The

British Museum now has all that could be salvaged of this library, and translation is still going on.

The palaces were surrounded by a wall which also enclosed the large step tower of the god Assur and the lodgings of courtiers and priests. Large subterranean halls served as storerooms for gold, for food supplies, and especially for weapons wrought of copper and iron. The palace gates were guarded by imposing sculptures of lions with human heads and birds' wings, and of creatures with the heads of eagles or the torsos of bulls.

Assyrian bas-relief.

The most outstanding feature of the palaces, certainly by today's standards, were the reliefs which extended through all the halls. Besides the art of warfare, the art of creating reliefs seems to have been the Assyrians' only original contribution and the one that brought them world fame. Scenes from everyday life are only rarely represented. More numerous are pictures of the royal hunt—horsemen and dogs in pursuit of lions, antelopes, or stags, and the death agony of the cornered animals today still strikes us with frightening impact.

87

Most of the reliefs, however, show the death agony of human beings vanquished by the Assyrians in war, and battle scenes from these wars. We see the armies of Sennacherib, Esar-Haddon and Assurbanipal pushing ahead through forests and marshlands, crossing rivers and scaling mountains, we see the encampment with the royal tent outside the city that is to be conquered and destroyed, we see the attacking foot soldiers and the assault of troops mounted on horses and camels. Scaling ladders are being set to the walls; flames are shooting forth from the towers; the bodies pile up; blood-dripping heads are rolling on the ground; a bearded scribe sits before a tablet on which he registers the number of severed heads. The living are bound, tortured and flayed, and their horror screams from all the walls of the palaces in Nineveh—in gold.

With the treasures which they had plundered and looted in the territory between the Euphrates and Tigris, the Assyrian kings created the first city of pomp and ostentation in history—the city that was to flourish, while its rulers brought death and destruction to all the other cities. And it flourished. During the seventh century B.C. the residence of the Assyrian kings was the centre where the greatest power and economic development were concentrated.

There were only two metropolises that might have dimmed Nineveh's renown—Babylon on the Euphrates, and Thebes on the Nile. But Sennacherib turned the great city of Babylon into wasteland in 689 B.C., and his nephew Assurbanipal destroyed Thebes twenty-six years later. The Assyrians who had already burned and plundered hundreds of cities, were to destroy eventually almost all the remarkable cities of their time.

The bloody city conducted its business of destruction with a perfection that was matched only by Genghis Khan and his Mongolian hordes. That nomads hate all cities is understandable; the Huns, Mongols, and Tartars demolished them whenever they had a chance. The Assyrians, on the other hand, prove that well-established people with cities of their own, can turn hatred against cities also—*other* cities, that is.

GREAT CITIES DESTROYED BY THE ASSYRIANS

City	Date	Ruler
Babylon	1239 B.C.	Tukulti-Ninurta I
Damascus	732 B.C.	Tiglath-pileser III
Babylon	689 B.C.	Sennacherib
Sidon	677 B.C.	Esar-Haddon
Memphis	671 B.C.	Esar-Haddon
Thebes	663 B.C.	Assurbanipal
Babylon	648 B.C.	Assurbanipal

Assur	614 B.C.
Kalach	612 B.C.
Dur-Sharrukin	612 B.C.
Nineveh	612 B.C.

There are still nomads today, the Bedouins for example, but they are too small in number to threaten city culture; a question that concerns all of us, however, is whether the Assyrians will find followers in our time. They have found many in history. Destruction of cities was so frequent and for most nations so much an accepted fact, that in A.D. 1513 more than two thousand years after the last raids by the kings of Nineveh, the Florentine politician Niccolò Machiavelli, in his book *The Prince*, arrives at a rule for statesmen:

> A city accustomed to its freedom is more easily maintained with the help of its own citizens than in any other way, in case one does not prefer to destroy it . . . Actually, there is no surer way to have it in one's possession than to destroy it. Who becomes master of a city used to living in freedom, must expect to be annihilated by that city, if he fails to destroy it.

Staying in London as an honoured guest after his victory over Napoleon, Marshal Blücher is reported to have expressed his reaction to that great city in these words: "What a city to sack!" The Second World War and all that we hear about atomic missiles give us no reason to hope that the military have changed their minds about the invariable desirability of obliterating large cities.

Another strange and rather poignant story is that of the prophet Jonah, who reproaches the Lord for cheating him of a spectacle God had promised him. This spectacle was the destruction of Nineveh.

"Arise, go unto Nineveh, that great city, and preach unto it the preaching that I bid thee," the Lord had said to Jonah. "So Jonah arose, and went unto Nineveh, according to the word of the Lord . . . And Jonah began to enter into the city a day's journey, and he cried and said, Yet forty days, and Nineveh shall be overthrown."

According to the Biblical story the people of Nineveh believed in the Lord; they clothed themselves in sackcloth and did penance. "And God saw their works, that they turned from their evil way; and God repented of the evil, that he had said that he would do unto them; and he did it not."

And here is the line which to us sounds quite extraordinary: "But it displeased Jonah exceedingly, and he was very angry." The

prophet is filled with rage because the destruction which he believes to be entitled to, fails to occur. Yet he does not yet give up hope: "So Jonah went out of the city, and sat on the east side of the city, and there made him a booth, and sat under it in the shadow, till he might see what would become of the city."

As for Jonah, he waited in vain. But the prophets Nahum and Zephaniah were right after all; a horrible end lay in wait for Nineveh.

The city's glory continued for only about eighty years. Its decline began with Assurbanipal's death in 626. Under Cyaxares II (called the Great), the Medes, from the Persian highlands, penetrated into Assyria. They destroyed the old capital Assur in 614 B.C. Amid its ruins, an alliance was sealed between Cyaxares and the Assyrian general Nabopolassar; the latter deserted his king because Cyaxares in return had promised him half of the Assyrian empire, recognition as king of Babylon, and to top it off, the hand of his daughter in marriage.

The combined Median and Babylonian troops advanced toward Nineveh and beleaguered the city for two years. A flooding of the Tigris, which undermined the walls of the metropolis, precipitated the end. In 612 B.C. Nineveh was taken by storm; and, while the victorious troops rushed through the streets, in his palace the last king of Assyria set fire to himself, to his women, and to his treasures.

> The chariots shall rage in the streets, they shall justle one against another in the broad ways; they shall seem like torches, they shall run like the lightnings (we read in the Book of Nahum) . . . The horseman lifteth up both the bright sword and the glittering spear; and there is a multitude of slain, and a great number of carcases; and there is none end of their corpses; they stumble upon their corpses. Now the soldiers are looting the city which had grown great from the spoils of looting, and they carry off inestimable values in treasures to Babylon and Ecbatana, the Median capital.
>
> Take ye the spoil of silver, take the spoil of gold; for there is none end of the store and glory out of all the pleasant furniture. She is empty, and void, and waste.

Nineveh suffers the very same fate it has inflicted upon the greatest cities of its time: the inhabitants are slain, the city, with everything in it, is burned to a cinder. Nahum concludes:

> There is no healing of thy bruise; thy wound is grievous; all that hear the bruit of thee shall clasp the hands over thee; for upon whom hath not thy wickedness passed continually?

Nebuchadnezzar, the son of Nabopolassar and future king of Babylon, was the commander of the Babylonian troops. He knew Nineveh—he had a hand in turning the city into ashes—and he rebuilt Babylon so that it excelled Nineveh.

Of the two cosmopolitan cities in the ancient Orient, only one, it seems, could exist at a time; it was a duel to the finish, a not unfamiliar occurrence in history. To beautify his own metropolis, Sennacherib had used the treasures of Babylon, the city which he had demolished; with the loot gathered in Nineveh, Nebuchadnezzar gilded his new Babylon. The destruction of the hated city was so thorough that soon the desert sands covered the few ruins, and even the site of Nineveh was completely forgotten. For 2,400 years its ruins remained buried under the sand.

It was not until A.D. 1840 that the French consul at Mosul, on the river Tigris, Paul-Emile Botta, found fragments of bricks on the opposite bank of the river, which gave him the idea that this might be the site of Biblical Nineveh. But since his digging did not produce anything remarkable, he gave it up at that time and in 1842 started new searches near the village of Khorsabad, north of Mosul, where peasants had found large pillars.

There, Botta indeed discovered the ruins of a tremendous palace, and he found charred beams, clumps of molten copper, and other signs of a city's violent death. He was believed to have found the great city of Nineveh and in 1849 published a monumental work in five volumes entitled *Monuments de Ninivé*. What he actually had discovered, was Sargon's palace-city Dur-Sharrukin.

Nineveh was still hidden beneath the brick fragments opposite Mosul, as Botta originally had suspected. The Englishman Sir Austen Henry Layard unearthed the ruins of the world city during the years 1846 to 1851. Nowadays, the oil-well derricks of Mosul, second-largest city of Iraq, look down upon the trenches dug by the archaeologists, and the remnants of the great wall on the opposite side of the Tigris.

Thus Nineveh was found—the city of the pilferers and their victims, of the murderers and the murdered, the city of gold and of blood—the very same metropolis which in the seventh century B.C. erased all other cities from the face of the earth, so that no other but its own radiance remained: "I am it, and there is no other."

Thucydides, the great historian of the Peloponnesian War, which devastated Greece from 431 to 404 B.C., began his historical work with the surprising statement: "My thorough research has proved that neither the wars nor the other events of those times of old were remarkable." Nineveh's rise and fall are part of the events of those "times of old".

Chapter 3

THE LABYRINTH OF KNOSSOS

THE OLDEST European city of which we have knowledge probably was Knossos on the island of Crete. It is no accident, that city culture, an Oriental invention, reached Europe through its most southerly extension.

Most of the oldest cities and the first metropolises were grouped about latitude 30 degrees north, which cuts across today's Cairo. During the last centuries B.C., city culture slowly gravitated to the 40th parallel, which runs north of Athens and south of Rome. Modern European cities with millions of inhabitants all are between the 40th and 60th parallels, Athens being the only exception.

So the first European city developed in its southernmost part. Crete is situated at an equal distance of 341 miles from the mouth of the Nile and from the island of Cyprus, which belonged to the empire of Hammurabi of Babylon about 1700 B.C. This distance of 341 miles appeared negligible already to the seafarers of the second millennium. No doubt Crete had profited greatly from the influence of Babylonian and Egyptian civilization.

Situated on a hill near the island's northern shore, among vineyards and olive groves, the palace of Knossos, one of the most remarkable structures in history, was built probably in the seventeenth century B.C. Surrounding an inner courtyard 180 feet long, rose a monumental palace structure of more than four hundred halls, rooms, chambers, hallways, stairways, and inner courts. The entire building covered an area of 558 by 512 feet, equalling 6.4 acres, and some of its parts were four storeys high. As the palace picturesquely sloped down the hill, the highest floors in the east wing were lower than the large courtyard at ground level.

The wanderer was greeted from afar by the magnificent white pillars. Large picture windows, as yet without glass panes, testified to the architectural development as well as to the carefree spirit of the masters of the palace, because large windows were in those times a tremendous luxury and extravagance. Walls and ceilings were decorated with stucco reliefs and frescoes, from which we learn how ornately and artfully the women of Knossos dressed. Bathrooms, water closets, a drainage system, and pits for refuse were taken for granted.

There was no wall to protect the palace. Obviously, peace reigned on the island, and there was also confidence that it would last—a quite unusual state of affairs in antiquity. As a great mercantile power with a large fleet, Crete seems to have felt secure against hostile outsiders.

The palace was surrounded by scattered comfortable villas and little villages where peasants and artisans lived, while the rowers and ships' carpenters had their homes near the shore; apparently none of them suffered want, but they were separated by an abyss from the wealth of the palace.
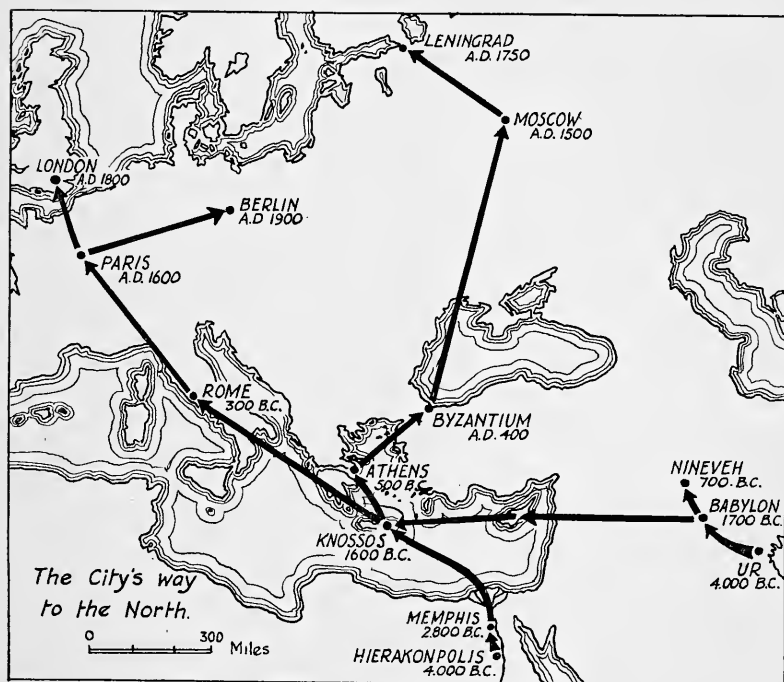
The City's way to the North.

In strange contrast to the luxurious facilities and appointments were the modest dimensions of all the rooms, and even of the so-called halls, of which there are very few in proportion to the bewildering number of tiny chambers and small crooked corridors. In the west wing, for instance, opening on to a hallway approximately 265 feet long, there are no fewer than twenty-three rooms, which some researchers believe to have been storerooms and others suppose to have been monks' cells. It has been suggested that Knossos was not a royal palace at all, but a cult establishment housing a

community of priests. It seems more likely, however, that the palace was the centre of a unified Cretan empire and the residence of its king.

The diminutive size of the rooms might be explained by the probability that the life of the palace dwellers took place mainly in the roomy inner courtyard; thanks to the Cretan climate, most of the time it *could* take place there. The yard—1,877 square yards in area—was the stage for social activities, for arms practice, for religious ceremonies, and probably also for theatrical performances.

Shortly before 1400 B.C. the magnificent palace fell into ruins— presumably due to an earthquake, although it is also possible that it was destroyed by enemies from the continent. A Greek village later was built upon the ruins.

The imagination of the Greek settlers was so preoccupied with the ruins that one of their favourite legends centred around Knossos: the legend of Daedalus, Ariadne, and the labyrinth. It tells that King Minos, a son of Zeus, was ruler in Knossos. His queen Pasiphaë, pregnant by a bull, gave birth to a son, Minotaur, a monster with a bull's head and a human body. The king imprisoned this ill-begotten bastard in the labyrinth which he had ordered built by an ingenious Athenian, Daedalus. Every nine years Minos tossed seven youths and seven virgins from Athens into the labyrinth, and the monster devoured them.

Theseus, the Athenian hero, put an end to all this. He ventured into the labyrinth to kill the bull-headed Minotaur. But he would have been hopelessly lost in the twistings and turnings of the uncanny structure had not Ariadne, the king's daughter, given him a ball of thread which he unwound as he went along, so that he could find his way back to the exit. Theseus killed the Minotaur and with Ariadne escaped to Naxos, where he abandoned her—a misfortune the king's daughter hardly deserved.

Daedalus himself did not wish to remain in Knossos either; for himself and for his son Icarus, he constructed wings of birds' feathers and wax, and fled to Sicily. On the way, Icarus flew too close to the sun, the wax melted, the wings fell apart, and he tumbled into the ocean.

And so, we are indebted to Knossos for a number of learned expressions and picturesque symbols, such as "Icarian wings" and "Ariadne's thread". The labyrinth in particular has found countless applications; we find it in games, in fairy tales and in nightmares, as floor pattern in the churches of the Middle Ages as well as in the palatial gardens of the rococo period. The Greek legend did not have to invent the labyrinth—it existed already, right there in the palace of Knossos with its four hundred chambers and hallways,

whose intricate interconnections troubled the Greeks when they came upon the ruins. Not the mythical Daedalus but the real-life rulers of Knossos built their palace as a labyrinth.

The why is rather difficult to ascertain. There may have been practical reasons which we cannot reconstruct. It may also be that man has a natural predilection for labyrinth building, for what we find inside the palace walls of Knossos can be seen inside the walls of many cities, and it is still a commonplace in the Orient: narrow, crooked, winding, dead-end lanes where every stranger inevitably
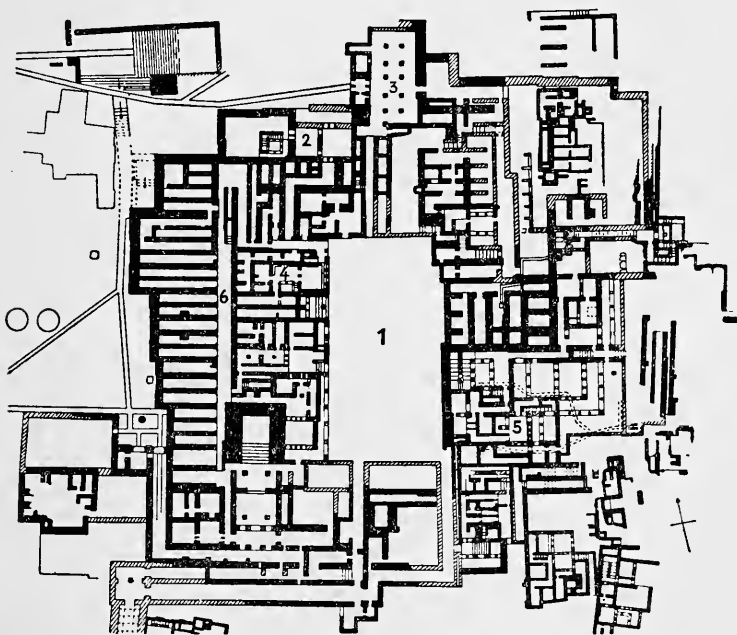
The Palace of Knossos: (1) *Courtyard,* (2) *Front Hall,* (3) *Hall of Pillars,* (4) *Throne Room,* (6) *Eighty-metre corridor.*

loses his way. Whatever the reason, the building of labyrinthine passageways was deliberate, and one cannot shrug it off as accidental.

The catacombs of the early Roman Christians were designed primarily as burial places; the dead were immured in niches hewn into the side walls. But the catacombs also were a refuge for the living during the time of their persecution; their narrowness, their

twisting and turning, and their complete darkness made the catacombs too a kind of labyrinth.

Many cities were built in a labyrinthine pattern. The old quarters of Central European cities have retained this characteristic, and the back yards of apartment houses built during the nineteenth century —with one stacked behind the next—are virtual throwbacks to the labyrinth. A dramatic example was the old harbour section of Marseilles, a labyrinth of the underworld, which the German military government simply blasted to bits in 1943 after it had proved disastrous to many a German soldier. In North Africa and in South Asia there is hardly a town where we do not find a maze of lanes and narrow streets and a crowding of houses, from which a stranger had better keep his distance—and that is exactly what he is expected to do.

The labyrinth is as old as the city itself. The straight, wide street is a late achievement that very infrequently appears during the second millennium B.C.—that is, at the beginning of the second half of city history as we know it—and even then the achievement is mostly the result of a ruthless royal will. The wide, straight streets of our time are still unknown to about, roughly estimated, half of all the towns on earth.

The only unique feature of the labyrinth at Knossos was that it was located inside a complex of buildings. Could it be that the labyrinthine passages of the palace and the feeling of security, which they conveyed to the inhabitants of the palace, were a conscious—or unconscious, for that matter—compensation, a kind of reassurance, to offset the builder's imprudence in dispensing with heavy walls and, through large windows, opening the palace to the world?

Whether Knossos may rightly be called a "city" is an idle question. The palace by itself can hardly be so designated; but if we include the villas and villages, where altogether close to 40,000 people resided, it certainly was a city—a city loosely spread over the countryside, much as Los Angeles is today, with the sole difference that the California community lacked a palace as a nucleus.

That a city's main section was a palace, even that it consisted almost entirely of a palace unit, was not at all unusual. The oldest example is the royal palace of Mari (today, Tell Hariri) on the Euphrates in northern Babylonia, built about 2000 B.C. It was almost as large as the palace of Knossos and, except for some larger halls, consisted entirely of 260 small rooms. Hammurabi of Babylon subjugated the Mari kingdom and demolished the palace in 1696 B.C.

The most resplendent palace-city of antiquity was Persepolis

(Parsa, in Persian), the summer residence of the Persian kings, 5,154 feet up in the mountains and thus removed from the heat which plagued Susa in summer. This structure, built about 500 B.C., completely of grey marble, rose from an artificially created mountain terrace surrounded by powerful walls. Connected with a palace of utmost splendour were treasury buildings, storage houses and armouries. A veritable forest of hundreds of pillars, each one 66 feet high, carried the ceiling of the king's throne room, which was lavishly decorated with gold.

In 330 B.C., Alexander the Great, then twenty-six years old, seated himself upon the throne of Persepolis, arched over by a golden canopy. Then he plundered the magnificent city and burned it down. The Greek historians Clitarchus and Diodorus inform us that during a banquet the conqueror himself in his drunkenness and insolence tossed the incendiary torch. Others, however, contend that available evidence indicates that the city was destroyed as part of a very deliberate strategy; presumably, with this holocaust Alexander wanted to pronounce the Persian empire dead—that mighty power which for 170 years had been threatening Greece with annihilation.

Comparable to Knossos in size is the Escorial, that massive granite monastery-and-palace that towers gloomily over the southern slope of Sierra de Guadarrama, about thirty miles north-east of Madrid. Built between 1563 and 1586 for Philip II of Spain, it was the burial place of Spanish monarchs, a centre of learning, and a huge monastery, as well as a royal residence. With its eighty-six stairways, twelve hundred doors, and nearly ten miles of corridors, it too is very much a labyrinth.

To Versailles belongs the distinction of being the largest and most costly palace-city in modern times. From 1661 to 1690, Louis XIV expanded the hunting lodge, which his father, Louis XIII, had built, into a tremendous palace, with a façade that was 1,900 feet long and had 375 windows. Approximately 36,000 workers were employed in this construction; 10,000 workmen and soldiers are said to have lost their lives in unsuccessful attempts to cut a canal between the river Eure and the palace. The small village of Versailles was given the status of a city, and it spread out, with villas for the court officials and with armouries of the royal guard, thus constituting in fact an annex to the palace. Some 350 horses were kept in the palace stables, and 4,000 servants were housed in 1,000 chambers.

The pomp with which the Sun King surrounded himself, and the boot-licking he expected from his entourage, surpassed anything that Nebuchadnezzar in Babylon and the Persian kings in Susa and Persepolis had contrived in this respect. The offices of "chief

D

97

carver of the roast" and "caretaker of the royal cravats" were so highly prized that they were filled only by noblemen—who either inherited them or purchased them at fantastic prices.

The courtiers were obliged to bow not only before the royal bed of state, even though it might be unoccupied, but also before the silver bowl which contained the napkins and the salt-cellar of his majesty. The napkins, to be sure, played a special rôle because it was the king's habit to use his fingers instead of a fork. The chroniclers are silent about the number of virgins that were cast to this new Minotaur in his labyrinth.

Idea for garden maze: taken from a book published in Antwerp in 1583.

The palace-city of Versailles has made world history because three peace treaties were signed there: in 1783 after the North American War of Independence, in 1871 after the Franco-German War, in 1919 after the First World War. In 1871 a German emperor was crowned in the Sun King's palace. When Hitler in 1939 moved into his new Chancellery, the Nazi Press did not fail to mention that the large marble gallery of the Führer's palace with its length of 480 feet surpassed even the Hall of Mirrors at Versailles.

So we see Knossos in the centre of a long tradition which it passed along from the Orient to Europe: the tradition of the palace-city, which extends from Mari to Versailles, and the tradition of the labyrinth, which starts with the beginning of the city and today is still alive; in Knossos, however, strangely enough, this tradition found its realization *inside* a building. Crete, 1500 B.C.— anvil of city culture.

THE SO-CALLED DEMOCRACY OF ATHENS

THE FIRST modest beginnings of city development on the European continent appeared during the second millennium B.C. At that time in Italy a settlement was considered quite large if it contained three hundred people in fifty huts. On the Greek mainland a number of small, strong burghs resembling Jericho or ancient Troy, formed the nuclei of city development. More populous settlements were not feasible, because of the meagre harvests yielded by the rugged, infertile soil of Greece.

The burghs were usually situated on mountain-tops and consisted of the royal palace, storage houses, barracks for the warriors, a market place, a bazaar, and a place for religious rites. Most of the ruler's subjects lived outside the walls, but in case of danger they fled into the fortress. Today, when danger threatens, the process is the opposite—we abandon the city.

At the end of the second millennium, the largest and most city-like of the Greek refuge burghs were on the Peloponnesian peninsula—Tiryns with its Cyclopean walls, Argos, and Mycenae.

Mycenae, according to legend Agamemnon's royal burgh, during the fourteenth century B.C. was surrounded with a big wall; the longest diameter of the little town inside the wall was 1,312 feet. In Knossos a highly developed architectural culture and a strange nonchalance had joined forces in creating a radiant palace; the buildings of Mycenae were gloomy, large, and provocative in appearance; they were intended to serve as protection against enemies lurking everywhere. On the island of Crete, the Babylonian type of house was predominant—numerous rooms, grouped around a courtyard. The Mycenaean house consisted of a single room with the hearth as its centre.

The older cities, in general, had been established inland, mainly to avoid the menace of piracy. But, as navigation became safer and more profitable, newer cities sprang up on the sea coast. There the inhabitants built walls to protect themselves from invasion and developed their opportunities for trade with peoples across the water. The most eminent of the "newer cities", and the largest among the many tiny city-states of Greece, were Corinth, Sparta, and Athens.

Corinth, today a city of 18,000 inhabitants, is located on the narrow isthmus which connects Peloponnesus with the Greek mainland. In the sixth century B.C., with harbours on two oceans, the city was the largest trading place and the richest settlement of Greece—one may even assume that, with its roughly 60,000 citizens, it was then the largest city in Europe. In 146 B.C. Corinth was chastised by the Romans because the city had revolted against their mastery. Apostle Paul addressed his letters to the wealthy Roman colony which grew on the ruins of the city.

Sparta too is today a small town, with a mere 12,000 inhabitants; yet, most likely, these are more people than were living there at the time when the Spartan soldiers fought for supremacy in Greece. In the fifth century B.C. the Spartan state covered two fifths of Peloponnesus, which would mean roughly 3,280 square miles, an area equal to about two-thirds that of Connecticut, or somewhat more than half that of Yorkshire.

The cosmopolitan city of Athens trembled under the assaults of this tiny country. Its capital, Sparta, did not even merit being called a city; it consisted of a group of five villages which centred around the sanctuaries and a market place which they all shared. The Spartiates were a small military caste of approximately 5,000 people who ruled a population of almost 500,000 farm workers and slaves— subjugated people who had no rights.

The master caste was merciless with their own as well—military service began at the age of seven, and only when he was sixty was the old Spartiate released from military duties. Even in peacetime the soldier was only a guest in his family. He spent the entire day in military activity and had his meals with his fellow warriors.

Sparta was not really a city-state, therefore; one might more correctly call it a village-state. It would seem that even in those early days military proficiency was a talent possessed by the country people rather than by the cosmopolitans. On the other hand, little has been said about Spartan culture.

In speaking of Greek culture, one usually thinks of Athens.

About the end of the second millennium, the burgh Athens was located on the Attic peninsula, even in antiquity a sparsely wooded area full of rocks and stones. Situated on a 492-foot-high cliff, it could be seen from ships at sea, even though it was more than three miles inland.

At the beginning of the first millennium, the rulers of the burgh subdued the entire Attic region, while simultaneously a city-like settlement grew up on the southern slope of the cliff, under the protection of the fortress. During the eighth and seventh centuries, the settlement grew in size and influence, thanks mainly to the

building of a fleet and the outstanding skill of Athenian artisans.

Pisistratus, the ruler of Athens from 560 to 527 B.C., was highly concerned with the city's continued expansion on a grand scale. During his reign were built the large market place, the Zeus temple, and a new water system. By now, Athens was a city of approximately 20,000 inhabitants, but it was no match for Corinth in economic development, nor for Sparta in military strength.

Nevertheless, in 490 B.C., Athens succeeded in repelling the onslaught of an army of the Persian empire near the village of Marathon on Attica's east shore. Today, children everywhere know of that historic victory, thanks to the famous courier who ran 26.219 miles to carry the news to Athens, where he fell dead as he completed his mission. But ten years later the Persians returned. After defeating the Spartans at Thermopylae, they marched on Athens. The citizens fled, King Xerxes stormed the Acropolis, massacred all the Greek soldiers, set fire to the temples, and ransacked the city. Soon afterward, however, the Athenians under the command of Themistocles overpowered the Persian fleet near the island of Salamis and chased the Persians out of Europe forever.

And in much the same way as Babylon reached the highest peak of its existence after its complete destruction by the Assyrians, so the destruction of Athens marked the beginning of the tremendous development achieved by that city in the fifth century B.C.

When the invaders had departed, the Athenians brought their women, children, and possessions back from their hiding places and immediately began to rebuild the city and its walls. Only small portions of the wall remained standing, and only the few houses which high-ranking Persians had occupied were still intact. The new wall extended the city limits east and north, giving the city an area of 0.81 square mile—hardly more than that of London's Hyde Park, and less than two thirds that of New York's Central Park. Unlike Babylon and other ancient cities, Athens was highly irregular in shape, due mainly to the hilly terrain on which it is situated.

Themistocles urged speed in the rebuilding; safety, not beauty was the prime consideration. And, according to Thucydides, the way things were built showed the haste in which the work was done. The new wall of Athens was constructed of rough stone blocks and old pieces from the ruins; even tombstones were used. The houses sprang up along lanes that were as narrow and crooked as ever.

It was not until Pericles ruled, from 461 to 429 B.C., that Athens again had a face—one of the most agreeable faces a city ever had. He built the Acropolis, whose ruins today are the goal of so many tourist pilgrimages.

At first, the Acropolis was only a fortress, the ancient burgh of

Athens. The first temples in classic style were erected during the sixth century B.C., but until Xerxes razed it, the characteristics of the fortress were predominant. Then the surface of the ragged rock was evened out, and with backbreaking labour and maximum utilization of the ruins, the high plateau was turned into a terrace for a radiant temple-city, a sacred, ceremonial place.

It took from 448 to 432 to build, under Phidias' supervision, the Parthenon, the marble temple dedicated to the virgin goddess Athena. It was built on a modest scale, 230 feet long and only 35 feet high, but it was of such perfect harmony that it has become the prototype of the Greek temple, and for many people it is the greatest work of art ever. The richly embellished colonnade contained a statue of Athena that was wrought of gold and ivory by Phidias himself; it also housed the Attic state's treasury.

Simultaneously with the Parthenon, the magnificent marble door of the Propylaea was completed. Twenty years later Pericles added another sanctuary, the Erechtheum. Between the two temples led the sacred street which began at the Propylaea; it was flanked on both sides by the offerings the Athenians had placed there for their protectress, and also by the stones into which the most important decisions of the public assembly had been inscribed. Next to the Erechtheum rose the immense bronze statue of Athena Promachos, the goddess of the battle—the spike of its golden spear, like a symbol of Athens, lighting the way for approaching ships.

Four hundred and ninety feet below was the city, which under Pericles and during the following century was a cultural centre beyond compare and the birthplace of the Occidental spirit. In Pericles' time, the great masters of the tragic muse, Aeschylus, Sophocles, and Euripides, wrote their great works; the best minds of Greece were drawn to Athens. Socrates was teaching his fellow citizens how to achieve virtue through knowledge.

And here the art of oratory rose to a prominence never again achieved except in Rome. Oratory played an all-important rôle, for the philosophers as well as for the speakers in the assembly, and for the contending parties in the court of law. To conduct lawsuits was a passion of many Athenians, which the great writer of comedies Aristophanes satirizes in *The Birds*:

> 'Tis not that we hate it [the city]; we recognize it to be great and rich, likewise that everyone has the right to ruin himself; but the crickets only chirrup among the fig trees for a month or two, whereas the Athenians spend their whole lives in chanting forth judgments from their law-courts.

The members of the upper classes were wont to spend the better

part of the day, if not in court, then in the market place or in the gymnasium. The famous Athenian market place, the agora, was at once the place of assembly for the citizens, the exchange, and a meeting place for tradesmen, orators and loafers. Fountains and plane trees arose in the centre, rows of pillars lined it, and the town hall, the state archives, a marble hall dedicated to Zeus, and a picture gallery provided the frame. The place was always alive with people, with citizens involved in dispute, with tradesmen intent on striking bargains, and with slaves bending under their loads. Women were hardly seen in the streets; their domain was the house.
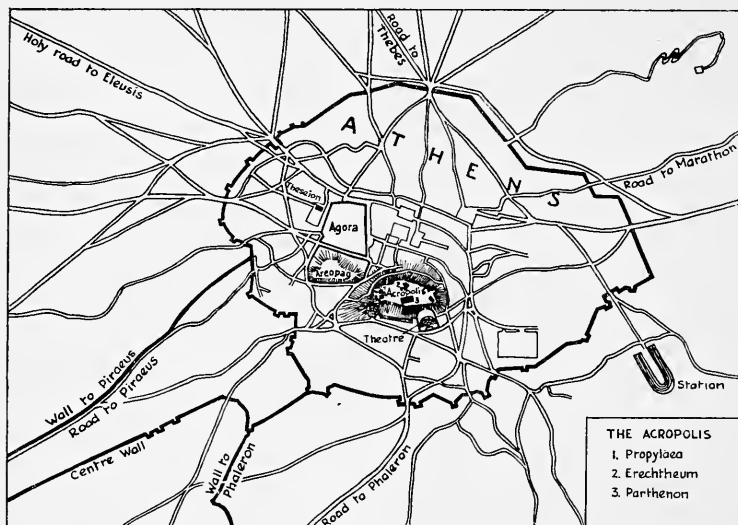
Plan of Athens.

The houses of the Athenian people were modest; not even the rich citizens built palaces for themselves; and when Alcibiades—commander in chief, strong man, traitor, universal genius, all in one—broke with traditional modesty and hung pictures on the walls of his luxurious villa, he aroused general disapproval. As in Babylon and in Crete, the average house had an inner court as its centre, but in Athens it was usually quite narrow.

Stores and workshops opened on the dusty lanes. Had it not been for the Acropolis and the market place, the centre of spiritual and intellectual life, Athens might almost have been a mediocre Oriental city; in respect to living culture, it certainly could not be compared with the thousand years older cities of Mohenjo-Daro on the Indus or Akhet-Aten on the Nile.

Outside the city gates were three large training camps—park-like grounds with halls for gymnastics, with arenas for athletics, and classrooms, among lakes and clusters of trees. Naked and glistening with oil, young men of Athens engaged in games and contests, while their elders watched them or indulged their insatiable zest for debate. Racing, wrestling, ball games, and spear throwing were taught as well as music and singing, reading and writing, and most of all the recitation of Homeric poems.

Athens was surrounded by country estates and peasants' farms, where shepherds, vintners and olive growers stubbornly tried to squeeze their livelihood out of the barren Attic soil. The olive oil not only served their nourishment, but also was used for illumination and for cosmetic and hygienic purposes.

Agriculture, however, would never have fed the 100,000 people who in Pericles' day lived in Athens and its two seaports, Piraeus and Phaleron. (There were even more people during the fourth century B.C.) These three cities formed an inter-connected city area, since they were linked together by the long walls which Pericles had built between 460 and 445 B.C. to make it impossible for any enemy to cut off Athens from its harbours. These harbours handled all the trade to which Athens owed its wealth. Concentrated in Piraeus was also the state's military power—its large fleet.

Therefore, when the Persians had been repulsed, Themistocles put more emphasis on the expansion of Piraeus than on the growth of Athens. The harbour-city's wall, eight miles long and about seventeen feet wide, was much stronger than the wall of the metropolis, and it was not so hastily pieced together; it was constructed of rectangular blocks joined together with iron and lead.

The wall enclosed the three harbour bays for the naval and mercantile fleets. Guarding each entrance were two towers, from which heavy iron chains were strung in order to bar access to the bay if necessary.

From plans drawn by the famous architect Hippodamus, of Milerus, Pericles turned Piraeus into a modern and painstakingly designed model city. Wharves and warehouses, the bureaux of customs and of the harbour police, the exchange, stores and taverns were placed exactly where they could serve their purpose best. The residential areas consisted of straight streets and quadratic blocks of houses. Piraeus was, after Miletus, the first city in the world to be completely planned on the drawing board, and it provided the model for the large harbours of Rhodes and Alexandria.

The population was a colourful mixture of tradespeople, artisans, sailors, and workmen; and in the city there were more foreign-born than natives of Attica—and still more slaves.

From Piraeus sailed ships with manufactured goods and agricultural products for all the countries on the shores of the Mediterranean and the Black Sea, especially for Italy—earthenware, lamps, metal utensils, leather goods, wine, and oil. It seems that only Athenian ceramics were considered fine enough by people of elegant pretensions in Spain as well as in Gaul, in Rome and in Carthage, in the Crimea, in the Persian capital, Susa, and upstream along the Nile to Ethiopia.

And heavily laden ships sailed to Piraeus. They brought first of all grain and slaves, but also ore, lumber, and precious woods, diamonds and ivory, incense and spices, foreign delicacies and marvellous rugs—not only from the Mediterranean area, but from Arabia, India, and darkest Africa as well. In the workshops of Athens and Piraeus the raw materials were manufactured into goods that to a great extent were then exported again. Some of those workshops had all the characteristics of an industrial operation, with up to a hundred workers.

A double city of lively workshops and maritime trading to the farthest countries of the known world—that is what Athens and Piraeus were at that time. An upper class drew its sustenance from all this skill and industriousness, an upper class with which the Greek historians and poets were so exclusively preoccupied that by now close to a hundred generations of students have assumed that only the members of this class were the true Athenians.

It is another misconception that the Athenian form of government was a democracy—rule by the people—as the term is defined today. It is true that *demos*, the people, ruled; but the great majority of Athenians were not counted as part of that "demos". Nevertheless, it is an Athenian statesman, Cleisthenes, who is considered the father of democracy. Building upon Solon's reforms, in 507 B.C. he proclaimed the equality of all citizens, and he granted each one the same influence in the government. The will of the citizens was expressed in the public assembly held in the market place.

Just as today, however, this fine theory had to suffer gross distortions in its practical application, and even as a theory it had its deplorable weaknesses.

First of all, even in those days people could be talked into an opinion by skilful speakers and flatterers. In fact, the demagogic speech, which could reach all citizens in those days, could do more harm than it would today. In his comedy *The Knights*, Aristophanes advises a man who sells sausages but feels called to become a statesman, as follows:

> Continue your trade. Mix and knead together all the state business as you do for your sausages. To win the people, always

cook them some savoury that pleases them. Besides, you possess all the attributes of a demagogue: a screeching, horrible voice, a perverse, cross-grained nature and the language of the market place. In you all is united which is needful for governing.

Secondly, even at that time there were men who knew how to corrupt democracy into a more or less authoritarian régime. "In name, the people ruled; in reality, however, the first man in the state ruled," wrote Thucydides concerning the great Pericles.

And the "people", as recognized by the Athenians, were a minority of the population and therefore not "the people" in our definition of the term.

There were many people in Athens, but comparatively few citizens. Only the free, adult male, both of whose parents were citizens too, could be considered as an Athenian citizen. Hence, women were not citizens. Indeed, they played an inferior rôle in classic Greece. At best, some of the intelligent hetaerae might have a certain influence, as for instance Aspasia of Miletus, for love of whom Pericles divorced his wife. Even in Plato's rhapsodic words about love no mention was made of women.

Foreigners—that is, people from outside Attica—could not be citizens, not even the first generation of children could be. Foreigners were also forbidden to own land. Their proportion in the population was quite considerable, especially in Piraeus.

Slaves were not citizens; indeed, in Aristotle's view, they were hardly human.

Athens, Piraeus, and Phaleron combined had about 14,000 citizens in the days of Pericles. Even including their families, they did not represent half of the population. But they governed the 100,000 people living in the triple city—which means that only 14 per cent of the inhabitants were privileged to vote. In modern democracies the average percentage is 60 to 70, depending on the number of children; even in Switzerland, where women are barred from voting, more than 30 per cent of the population may vote.

By present standards, therefore, the Athenian form of government was more nearly an aristocracy than a democracy. Nevertheless, this was progress in that sovereignty had shifted from an imperious tyrant to a small group of leading families; from there it shifted to the landowners, and eventually to all free men—which, at any rate, constituted a rather numerous minority.

In general, the slaves were not exactly overworked beasts of burden. On the farms in Attica they were treated like members of the family. In Athens they were not only carriers of heavy burdens and workmen, they could also become foremen, merchants, and even bank directors. The citizen avoided work; he was the man of

ideas and he gave the orders. Outside of that he kept body and mind in trim, the latter preferably through philosophical or legal discourses. As far as dress and deportment were concerned, citizens and slaves were hardly distinguishable.

But the citizens were not even tolerant of their own. The Assembly of the people could, by a simple majority, banish for ten years a citizen who had lost favour with them; this was the so-called ostracism. Themistocles, who once had achieved a victory over the Persians, was dealt with in this manner; this also was the fate of many military commanders who had suffered defeat during the Peloponnesian War. In the fifth century B.C. the philosophers Anaxagoras and Protagoras were accused of ungodliness and had to flee from Athens; in 399 B.C. Socrates the sage was condemned to death because he supposedly corrupted young people and scorned the gods.

So it would seem that the popular conception of ancient Greece—art and temples, Delphi and Olympia, noble simplicity and quiet majesty, democracy and free citizens—is a little lopsided. Athens did not derive its sustenance from art, but from trading; only men of the upper class were citizens, the majority of the inhabitants were slaves; the city consisted mostly of dirt and noise, of the hammering in the workshops and the shouting in the market place, of the intrigues of men and the quarrelling of women—and only to the smallest degree of the Acropolis. Nevertheless, the Acropolis was there, and that is something we lack.

If inside its walls Athens was not a thoroughly noble and attractive city, outside it stood for imperialism—but it did not get them very far. Greece was and remained a pack of bloodthirsty wolves who called themselves city-states and who tore each other to pieces.

Polis, the city-state, is not a Greek innovation. For two thousand years ancient Babylon did not know a state which extended further than a city and its surrounding farm land. But in Babylonia, as in most countries on earth, development eventually tended toward unification in the sense of a state, even though the larger state remained in the shadow of an individual city.

Greece, however, never outgrew the midget state. This fragmentation was favoured by the terrain of the country; the Greek mountains leave space only for narrow villages which open toward the sea, but are blocked off from the land by hills.

The word *city-state* does not necessarily imply that a state consists only of a city (even though there are some cases in point: Monaco and Singapore). The expression indicates rather that a country has but one, or at least one quite outstanding, city centre where power, commerce, cultural life, and religion are concentrated. The Greek

concept of the polis, however, includes undeniably smallness of size. All the citizens must be able to assemble in the market place, to establish by their votes their position as the members of the ruling class.

Only in the Swiss cantons of Appenzell, Glarus, and Unterwalden can we find the modern counterpart, in size and in form of government, of the Athenian polis. Each of these cantons has a population smaller than that of ancient Athens; in each the entire electorate, which is exclusively male, enacts the laws in outdoor assemblies.

Since smallness of size was much a characteristic of the polis and expansion generally was not even attempted, it is all the more astonishing that so many bitter wars were fought between the Greek city-states. This may be attributed partly to competition for commercial or political hegemony in foreign markets, and partly to desire for glory; for imperialism is not necessarily related to spaciousness.

The bloodiest of these wars raged for twenty-eight years, from 431 to 404 B.C.; it was a war between Athens and Sparta, but almost all the Greek cities were involved. Sparta had never attempted to compete with Athens in the areas of trade or culture; but when the city of Pericles began to move toward military hegemony, cruel fratricide was inevitable.

Aside from Attic territory, which seems to have comprised altogether 200,000 to 300,000 people, Athens—through to the Attic maritime league—dominated a coastal region with an estimated population of two million. Only Sparta blocked the way to Athens' complete hegemony. Pericles urged a decision by military force, and a small incident finally unleashed the Peloponnesian War.

The speech which Pericles delivered before the Athenians during the first winter of the war, reveals the conceit of the metropolis, which permeated everything:

> Our city is the centre of learning for all of Greece [he said, according to Thucydides]. Each individual man is educated and conducts himself decently and graciously. There is no other city but ours which comes out of each battle unscathed . . . It is even better than its reputation . . . We are not dependent on Homer or any other poet for their praise . . . Courageously we gain access to every ocean and every country; everywhere we leave behind reminders of our benevolence or our destruction.

Rarely, if ever, has this kind of arrogance, which in itself probably is part of metropolitan mentality, been expressed by a statesman so unabashed and so without restraint. Even if we may have our

doubts that Thucydides quoted the speech verbatim, he most likely caught the spirit very well.

This time, confidently relying on the new walls, the Athenians were not evacuated as they had been before Xerxes' attack on the city; on the contrary, the entire population of Attica was assembled in Athens. The peasants brought all their furnishings and utensils along, and some of them even carried the wood from their dismantled houses.

In 430 B.C., during the second year of the war, a disaster struck this overcrowded city like lightning: the plague. Thucydides has given us an account of it:

> Never before had anyone heard of such a pestilence and destruction. Human knowledge was helpless against this evil—birds and such animals which ordinarily feed on human corpses, did not go near them, even though they lay about unburied. If, however, they did feed on them, they too died. The dying and the dead were piled on top of each other. The sick, half dead of thirst, stumbled through the streets and beleaguered the fountains . . . the people became indifferent toward everything they had held in awe and respect. Many a person dared to do openly now what he previously had done only on the sly, or at least not in such an uncouth manner. It was obvious how quickly everything could change—the rich died and those who formerly did not own anything, hastily took over their possessions.

This is the first description of an epidemic visited upon a large city in Europe. From far in the past there has always been a strong affinity between cities and epidemics. What is a city to these bacilli?

We have previously mentioned some aspects under which this something called "city" may be considered. To the nomads, it is an outrage. Seen with the peasants' eyes, it is a strange and somewhat awesome assemblage of people and stones heaped on top of each other like a labyrinth, a playground for the rich, and an abode of all the vices.

To the mercenary on the rampage, the city is a most commendable and time-saving accumulation of valuables worth plundering. And there must have been great satisfaction for the German, English, and American bombing strategists of the Second World War in large cities; their existence in enemy country solved for them the question of what to do with their bombs. "City" and "bombs" are a pair of concepts that a real soldier never can separate; for, aiming at a city, one always scores a hit.

And if the bacilli which attack man with the plague, with typhoid fever, cholera and smallpox, could talk, they no doubt would

gratefully and happily acknowledge that finally the tedious search for victims is over—has been over ever since our ancestors created a simply ideal hunting ground for them in their cities. For thousands of years epidemics have been collecting a horrible ransom for the arrogance whose name is city. During the fourteenth century, when the Black Death victimized half of Europe's population from Ireland to Sicily, the bacilli, with the help of the cities, came very close to gaining a final victory over mankind.

In 429 B.C. Pericles himself fell victim to the plague in Athens, and his death, as much as the fact that the Athenians were greatly weakened by the plague, started an endless series of tribulations. In the seventeenth year of the war, Athens seemed more a fortress than a city. The Athenians kept constant guard at the walls. They took turns during the day; but at night all except the horsemen stayed with their armour, in the main plaza or on the city walls.

In 411, the twenty-first year of the war, Aristophanes wrote his famous play *Lysistrata*, wherein he expresses in the form of a comedy the people's anxious hope that the cruel feuding might at long last come to an end. The women of Athens, led by Lysistrata, decide to bring their belligerent menfolk to their senses by declaring a matrimonial strike. They entrench themselves in the Acropolis and confiscate the state treasury. Yet before the men are ready for peace, most of the women turn strike-breakers and desert Lysistrata, who nevertheless finally effects a reconciliation between the Athenians and the Spartans.

So much for the comedy. In reality, there were still seven more years of war. The growing unreasonableness of the public assembly, which condemned more and more generals to death for their failure to achieve victory, accelerated Athens' collapse. In 404 B.C. the metropolis had to surrender arms to the militaristic village; the Spartans dismantled the fortifications of Piraeus and the long walls connecting Athens and its harbour, leaving the Athenians with only twelve ships; they made all of Attica a Spartan vassal.

Athens' political hegemony was over for all time. Uncompromising adherence to the city-state idea made it impossible for the Greeks to pool their resources. Their inability to break with the city-state tradition prevented their forming a federation, or a united nation.

The war, however, did not end Athens' commercial and cultural development. On the contrary, trade expanded even further, and Greek merchants established themselves all over the eastern part of the Mediterranean realm. Athens, where the taste of civilized people of many countries was formed, was still the biggest trading centre on earth during the fourth century B.C.

All the streets in the city proper were now paved; the number of

schools and libraries had increased; the money of wealthy citizens built a theatre with 30,000 seats, where admission was free, at the foot of the Acropolis. Plato, the disciple of Socrates, laid the foundations of Occidental philosophy in his Dialogues; Aristotle, Plato's pupil, was summoned from Athens to the Macedonian capital, Pella, to educate a certain Alexander who later became known as "the Great".

It was this same Alexander who, before he set out to conquer the world, once and for all, and within a few years, ended the rivalries of the Greek city-states by incorporating them all without exception into his empire. When he, like a hurricane, roared through the gigantic Persian empire, he carried Greek language and culture —which essentially was Athenian culture—all the way to India. Athens, politically now powerless, nevertheless owed its world renown as a cultural force largely to its conqueror. Greek, already the language of culture in the Mediterranean realm, now became the language for all communication in the Near East, thanks to Alexander and to the traders and merchants who followed him.

Athens' mercantile importance followed the decline of its political power only during the third century, partly because of the rise of the new Greek cosmopolitan city of Alexandria in Egypt, partly because of an increasing dependence upon the Romans. Its cultural rank, however, did not suffer; the city became the educational centre for the sons of wealthy Romans. In great numbers, Athens' philosophers, poets, educators, sculptors, and craftsmen were summoned to Rome, to that city which traced its origin to Troy and now, thirstingly and willingly, soaked up Greek culture. Greek became the language of noble Roman families, just as French was to be during the seventeenth and eighteenth centuries in many parts of Europe, and in Russia even until 1917.

As late as A.D. 100 the Roman satirist Juvenal wrote the following lines deriding the manner in which some Greeks took advantage of the opportunities:

> I cannot stand it that Rome now, Oh citizens, turns Greek. Alert of mind, disgustingly forward, and of the greatest verbosity, has combined in himself every kind of profession and brought it to us: Rhetorics, grammatics, geometry, painting, and mixing salves, soothsayer, trapeze artist, physician, magician—all this is and knows a greedy little Greek; even up to the heavens he climbs if asked. Perfect play-acting! You have but to smile gaily, Then he is immediately convulsed with laughter; yet he howls when he sees his patron's eye grow moist.

Their reverence for Athens, however, did not deter the Romans

from pillaging the city in 86 B.C., when it, in vain, had tried to rise against Roman domination. They razed the city wall, which the Spartans had left standing, and they destroyed Piraeus. But even before this event, rich Romans had been plundering Athens and decorating their country estates and their city palaces with the works of art they had carried off.

Yet the aura of faded glory and the treasure that remained continued to attract visitors and became a source of revenue for many Athenians. Roman tourists, with more money than knowledge of *objets d'art* took in all the sights and paid fashionably high prices for souvenirs. Some Romans left more lasting memorials of their stay, building grandiose structures among the simple dwellings of the past. Augustus and Hadrian were among the builders of such edifices.

Then Athens was caught in the maelstrom of the Germanic migrations—in A.D. 267 it was plundered by the Herulians, in A.D. 395 by the Visigoths under Alaric, both nomads with their abhorrence of any kind of city culture. But even during the fourth century, Athens was still considered a cultural centre and a jovial city, drawing throngs of students from the Roman empire, which by then had begun to disintegrate.

When the Emperor Constantine in A.D. 330 made Byzantium the capital of the Roman empire, he ordered that Athens be searched once more for art treasures that could adorn his metropolis. In A.D. 529 the Byzantine king, Justinian, closed the famous Academy of Athens, where Plato had taught. From then on, Athens retrogressed to the status of a provincial city.

In A.D. 1458 the Turks invaded the one-time metropolis and turned the Parthenon into a mosque, the Propylaea into an armoury, and the Erechtheum in the Acropolis into the sultan's harem. In 1822, when in the course of the Greek war of liberation the Turks were driven out of Athens, it was a miserable hamlet of 2,000 inhabitants. Prince Otto of Bavaria, a son of King Ludwig I, was proclaimed king of Greece in 1832; three years later he moved his residence to Athens. He initiated the work of reconstruction, to some extent following the blueprints drawn up by Bavarian Court Intendent Leo von Klenze, who in the area around the Königsplatz in Munich and with the building of the Walhalla near Regensburg was trying to recapture the feeling of classical Greece. He restored the Parthenon, which had been badly damaged in 1687 when the fleet of the city-state Venice had shelled Athens during the great Turkish war; one grenade had set off an explosion of the powder magazine which, of all things, had been stored in Athena's former temple.

At the end of the nineteenth century Athens was once again a

metropolis such as it once had been under Pericles. Today, 1.4 million people live in the Athens-Piraeus-Phaleron triangle. The heart of the city is still the Acropolis, as it was 2,400 years ago.

The Acropolis serves as a reminder of the time when Athens was the cultural centre of the earth, the birthplace of the Occidental world, a city where simplicity and magnitude were as much at home as rivalry and avarice; freedom of thought and speech as much as hatred, war, and pestilence; the great sweep of the European spirit as much as the self-glorification of man (Protagoras had taught that "Man is the measure of all things"), and the doctrine of Democrites, who split the world into atoms. In Athens, one of the most prominent poets of mankind, Sophocles, was treasurer of the Attic League; in Athens, one of the greatest philosophers of the Occident, Socrates, was executed. Has ever since existed a city that embodied so many extremes?

Chapter 5

ARCHIMEDES AND CLEOPATRA

IN ANCIENT times the Greek empire was a region of islands and
shores that included a part of today's Turkey. And, just as the
Sumerians during the fourth millennium B.C. established colonies
on the Indus river, so the Greeks at the beginning of the first
millennium established footholds in many parts of southern Italy
and North Africa, and on the shores of the Black Sea as well. In
445 B.C., Pericles, at the head of the Athenian fleet, even visited the
Crimean peninsula. The peoples of those rather thinly settled shore
regions had little with which they could oppose the military and
economic power of the Greek settlers.

The Greeks conquered the west coast of Asia Minor by military
force, and constituted the upper class in the ancient cities Miletus
and Ephesus in Ionia. During the sixth century B.C. these two
seaports, together with Syracuse in Sicily and Corinth in Greece
proper, were the great commercial and cultural centres of the Greek
world. Homer was a colonial Greek from Ionia.

Miletus, the destination for several caravan routes out of Asia
Minor, was hardly less luxurious than Babylon, though the popula-
tion probably was only about 50,000. Most of all, Miletus was not
a city of monumental buildings, but a trading centre where whole-
sale merchants, shipowners and big landowners set the pace. There,
in about 700 B.C., the first metal coins in the history of money were
issued. Most of the inhabitants were slaves; they handled the oars
of the big ships, they carried the loads, they worked the fields. And
they were not treated as they were treated later in Athens; here
they were really driven so hard that several times there was great
unrest and once a big revolt in which women and children of the
rich citizens were murdered. When finally the merchants and
traders had regained the upper hand, they lighted the city squares
with the rebel leaders as living torches.

In 494 B.C. Miletus was burned down by the Persians. The
architect Hippodamus began the city's reconstruction in 479 B.C.
Miletus now became a city planned in all details for the needs of a
population of 80,000 people, with a network of streets crossing each
other at right angles, and with a perfect canalization system.
His achievement in Miletus brought Hippodamus other such

commissions, including the rebuilding of Piraeus and the designing of Thurii, the Greek colony in southern Italy.

Miletus was still an important city in the early Roman era. But then, as the harbour began to fill up with sand, it began to decline, and until the nineteenth century, when machine-powered dredges were available, it was abandoned as a port city.

During the Greek period, Ephesus could neither in size nor in wealth compete with Miletus. But it was in possession of one of the Seven Wonders of the World: the temple of Artemis, which was built during the sixth century B.C., four times the size of the

Athenian Parthenon. Herostratos, a poor herdsman, set fire to the magnificent structure in 356 B.C.—supposedly in order to become enduringly famous. He achieved his aim. The even more magnificent temple that emerged from the rebuilding was destroyed by the Goths in A.D. 262. With this destruction came also an end to temple prostitution, which had flourished here as in the city of Babylon of an earlier period.

It would appear that the morals of the Ephesians were not very highly rated. Petronius Arbiter, the great satirist at Nero's court, reported that "In Ephesus, a certain lady was famous for her chastity, and all the women from near-by parts travelled to the city to see her, because she was such a rarity."

This is the very same Ephesus where the Apostle Paul preached for two years. The city was the capital of the Roman province of

Asia and with its 200,000 inhabitants was one of the large urban centres of the empire. In the Middle Ages Ephesus degenerated into a provincial town where Arabs and Mongolians roamed. It disappeared completely when, in the fourteenth century, the silting of the harbour—which long had threatened the city's existence—could now no longer be kept in check. And so Ephesus died the same death as its sister city Miletus and as Eridu in ancient Babylonia.

The Greek colonizers pushed westward even farther; about 700 B.C. they founded Sybaris and Neapolis ("New City", which became today's Naples), and about 600 B.C. they built Massalia, which the Romans called Massilia and which now is known as Marseilles, the second-largest city of France. But the centre of western Greece was Sicily, where two cities were especially prominent—Agrigentum (Greek, Akragas), perhaps the most splendid, and Syracuse, by far the largest city.

Syracuse, on Sicily's east shore, had been founded in 734 B.C. by settlers arriving from Corinth; it soon outgrew its mother city and became the important trading centre in the heart of the Mediterranean. It grew to cosmopolitan stature under the tyrant Gelon. He united the eastern half of the island under his sceptre, defeated the Carthaginians near Himera in 480 B.C., and by this victory confined Carthage for almost two hundred years to the western part of the Mediterranean.

Gelon was obsessed with ambitions similar to those of Nebuchadnezzar of Babylon a hundred years earlier. He expanded the city of Syracuse, which heretofore had seldom ventured on to the Sicilian mainland from its tiny island of Ortygia, not much more than a mile long, to gigantic proportions; he even annexed a large rocky plateau, the westernmost part of which was two hours distant from the old city limits. This gave the city an area of approximately five and a half square miles, which was almost seven times the size of Athens at that time, and even larger than Rome of a later period when that city had a population of over a million.

And Gelon also saw to it that the unreasonably inflated city would not remain empty. He accomplished what Pharaoh Ikhnaton failed to accomplish nine hundred years earlier in his sun-city Akhet-Aten, and what the Australian capital Canberra is still waiting for in vain—namely, the full population of an area set aside for a giant city.

With the power inherent in a tyrant he used the grotesque means of forcibly transplanting to Syracuse the inhabitants of the neighbour cities Gela, Kamarina, and Megara, as well as people from numerous country settlements. In doing this, he preferred the wealthy citizens; the humble folk were sold as slaves.

Let us look at this absurdity for a moment: the ruler of a powerful empire strives to become illustrious through what in antiquity was the foremost requisite for glamour—a large city. His residence is too small for his ambition. He enlarges it arbitrarily to an extent more proportionate to his renown. And in order not to have the artificially inflated city formation remain empty, but to have it actually represent a live city, he commandeers as many people as are necessary to satisfy his idea of how big a city ought to be. Only now can the tyrant *see* all whom he rules. And more than that, the city and its milling crowds of people are almost like a reflector which projects the sovereign's illustriousness to faraway shores.

Strange as this procedure may seem, it is by no means unique. In 722 B.C. Sargon II of Assyria drove the Jews from their cities and filled the empty shells of those cities with various other subjects. Or, as it is told in the Book of Kings, ". . . the king of Assyria brought men from Babylon, and from Cuthah, and from Ava, and from Hamath, and from Sepharvaim, and placed them in the cities of Samaria instead of the children of Israel." And we have seen how Babylon during the third century B.C. deteriorated, when the kings of Seleucia transplanted the Babylonians into their new capital Seleucia and how, on the other hand, the inhabitants of Seleucia later on had to move on to Ctesiphon.

When the Soviets created new cities out of thin air in Siberia, they proceeded in a similar manner; but even though this also happened more or less under duress, we can see the point of it more readily than in Seleucia or Syracuse, where people were forced to move from place to place for the sole purpose of providing a backdrop more worthy of their ruler.

In our day the voluntary flow into the city is generally so strong that many a mayor would be only too happy if he could order a resettlement into the country.

In expanding the city of Syracuse, Gelon built temples, wharves and a network of canals which to some extent are even now in use. Temples and private houses were larger and more handsome than those in Athens and Corinth. Many wealthy citizens built palaces for their own private use. Apparently the whole city was obsessed with the ambition to outdo the Greek mother cities, as colonies grown large often are wont to do—New York has grown larger than London, Buenos Aires than Madrid, Rio de Janeiro than Lisbon— most likely in conscious competition with the mother city. During the fifth and fourth centuries—that is, at exactly the time when Athens had reached its peak—Syracuse, with 400,000 population, was probably the largest and richest city of the Greek world and of the Mediterranean area as well.

In the sphere of culture too, the cosmopolitan city of Sicily tried to keep pace with Athens. During the fifth century B.C. a theatre with a diameter of 440 feet was hewn out of the rocky plateau of the new city. Hieron I, Gelon's brother and successor, induced a number of Athenian poets to come to the court of Syracuse, among them the renowned Aeschylus, who spent a few happy years in Sicily and finally died there.

In 415 B.C. Athens went to war against this powerful city. The Athenians, who during the Peloponnesian War had suffered severe setbacks, hoped to improve their position by drawing the Greeks of Sicily over to their side, and this hope could be realized only through a victory over the great rival Syracuse. The Athenians set out on their Sicilian expedition with 266 ships, which besides the sailors and all the necessary supplies and equipment also carried 5,100 heavily armed troops, 480 archers, and 700 slingers. In 413 B.C., after initial successes, they suffered a devastating defeat during a heavy naval battle in sight of the towers of Syracuse. The 7,000 survivors were sent to the stone quarries, while their military leaders were executed. This was the turn of the tide in the Peloponnesian War. Syracuse, which toward the end of the war was supported by Sparta, with this victory sealed the military collapse of Athens.

In 404 B.C. Dionysius I became the tyrant of Syracuse and led it to its highest peak of power. At home he built a wall around the city. Abroad his empire encompassed the tip of the Italian boot besides two thirds of Sicily, while the western point of the island remained in the hands of the rival Carthage, which grew increasingly more dangerous. Trading places belonging to Syracuse and under its military protection extended along the Adriatic Sea up to the mouth of the river Po.

Dionysius, an important historical figure, nevertheless owes part of his renown to the somewhat apocryphal story of Damon and Pythias (or, more correctly, Phintias). The tyrant had condemned Pythias to be crucified for allegedly plotting to assassinate him. He granted Pythias' request for leave to go home and settle his affairs, when Damon agreed to take his friend's place and be put to death if Pythias did not return in time. Pythias, overcoming many obstacles, returned just as Damon was being strung up on the cross. When news of this touching manifestation of friendship was brought to Dionysius he freed both men and begged to be admitted to that inspiring friendship.

Another anecdote, however, paints the great Dionysius as a less generous man. The tyrant, whose interest lay in many directions, wrote tragedies and poems. The story is told that he once asked the poet Philoxenus for an opinion about his work. Philoxenus dared

to give an unfavourable verdict and was immediately sent to the stone quarries of Syracuse. Later, Dionysius recalled the poet to his court and read to him his latest opus. Before the tyrant had finished, Philoxenus silently turned to leave the room. "Where are you going?" asked Dionysius. "Back to the quarries," replied the poet.

Plato was another who experienced the tyrant's displeasure. About 390 B.C., when he was approximately thirty-seven years old, the famous Athenian philosopher visited Syracuse and was welcomed to the court. Dionysius, no doubt, was interested in the philosopher's ideas—especially those dealing with the necessary union of philosophy and political power—and the two men presumably passed many hours together, discussing them. But the king soon tired of the philosopher who was forever trying to enlighten him, and without much ado handed him over, as a prisoner of war, to the Spartan envoy, who sold him into slavery. Fortunately, a friend paid for Plato's freedom, and the philosopher was able to return to Athens. Dionysius II, who followed his father on the throne in 367 B.C., twice had Plato as a guest at his court and even studied under him—to no apparent purpose, it turned out.

Between the two great millstones, Rome and Carthage, Syracuse was gradually more and more reduced. Though Hieron II made Sicily the granary of Italy, the island, with the exception of the capital, became a Roman province in 241 B.C.

At this point, the Romans got a taste of what it means to have as an adversary the most famous mathematician, physicist, and engineer of antiquity—Archimedes. "Eureka" ("I've found it!") he supposedly exclaimed when, lying in a bathtub, he discovered the principle of buoyancy; and in order to make his principle of lever action clear, he spoke the often quoted words, "Give me a firm point and a sufficiently long lever, and I will move the world."

But Archimedes was also a creator of military equipment and intricate ballistic machines, which inflicted heavy losses on the Roman troops besieging the city, besides the more conservative means of defence, such as stones, torches, boiling oil and liquid lead, which were poured from the walls on to the enemy troops.

When the Romans finally stormed Syracuse, and the soldiers raced through the city, plundering and killing, the white-haired Archimedes was found on a beach, where he was drawing geometrical forms in the sand. "Do not disturb my circles," he said when a Roman soldier accosted him. He had expressed himself most politely—the literal translation of his words would be, "Would that you might not disturb my circles!"—but the legionnaire was unimpressed, and he killed him with his spear.

As a Roman provincial town, Syracuse faded out of world and city history. In A.D. 878 it was destroyed by the Arabs in their drive

toward Europe. Today, it is a city of fewer than 80,000 people. The industrial and university city of Syracuse in the state of New York in the United States is much larger than today's Syracuse in Sicily, and much smaller than the city of Syracuse of old.

In the fourth century B.C., when Syracuse was the largest city in Europe, the largest city in the world probably was Pataliputra (Greek, Palibothra; today, Patna), the capital of the Indian empire of Magadha, which stretched along the southern bank of the Ganges for approximately eight and a half miles—a walled-in rectangular area not much more than one mile wide. Its king, Chandragupta (also known as Sandracottus), who reigned from 322 to 298 B.C., with an army of supposedly 600,000 men conquered all of northern India, and in the course of this expedition annihilated the garrisons which Alexander the Great had left behind on the Indus.

Seleucus I, heir to the largest part of Alexander's empire, in 302 B.C. sent his emissary, Megasthenes, to Pataliputra. This man told of his surprise at seeing the large hostelries and the great numbers of merchants and of women of ill repute, and he ventured the opinion that the royal palace was more magnificent than the Persian palaces in Susa and Ecbatana.

The only criterion by which to estimate the number of inhabitants is the size of the city area, according to which it can hardly have been less than half a million. During the fourth century of the Christian era the city began to deteriorate—why, we do not know. Excavations have brought to light a hall which reminds of the throne room at Persepolis. Most of the ruins are submerged in the mud of the river Ganges in much the same way as the ruins of Hammurabi's Babylon are buried in the Euphrates' mud.

Another Indian city Cuttack seems to have reached a population of 300,000 during the second century B.C. It exported pepper, cinnamon, ginger, and jewels to the Roman Empire.

In the fourth century B.C. a new Greek city, with Greeks a minority of its population, arose to challenge the ascendancy of Syracuse: Alexandria, one of the cities founded by Alexander the Great. The young conqueror was a great founder of cities as well as one of the great destroyers of cities in history.

In 335 B.C. Alexander razed the Greek city of Thebes completely. One year later, he destroyed Halicarnassus in Asia Minor, famous for one of the Seven Wonders of the World—the 165-foot-tall funeral temple built for the Persian governor Mausolos by his wife and fittingly called "Mausoleum". In 332 B.C. the king destroyed the Phoenician sea fortress Tyre, which had been considered invincible, massacred 8,000 soldiers and sold the surviving 30,000

inhabitants as slaves. In 330 B.C., he reduced Persepolis to ashes, and in 329 he destroyed Marakanda, which later became the world city of Samarkand.

Wherever Alexander found it advisable to leave a garrison behind, he founded a city. There were more than seventy altogether, and they were mostly in those areas which we know today as the countries of Egypt, Persia, Afghanistan, Russia, Pakistan, and India. Alexandria in Afghanistan is today that country's third-largest city and is known as Kandahar. Alexandria in Egypt still bears its original name and is a city of millions. At the beginning of the Christian era it was the second-largest city on earth, with roughly 700,000 inhabitants.

In 332 B.C., when he was twenty-four years old, Alexander sailed down the Nile from Memphis and found the old border station Rhakotis on the western tip of the Nile delta well situated for the establishment of a harbour city. He himself is said to have drawn the over-all plan of the city, leaving the details to his architect, Dinocrates. A story has it that he ordered his soldiers to mark the lines of his ground plan with flour; whereupon birds came from all sides to nibble it. To the king's chief soothsayer, Aristander, this was a portent of prosperity to come—a reading that time has since confirmed.

Dinocrates supervised the building of the city according to exacting specifications which followed the example of Miletus and Piraeus, but far surpassed them in size. Alexandria, a walled-in rectangular area close to one mile wide, stretched along the coast for more than three miles, with two central thoroughfares, one running its entire length and the other its width, and each a hundred feet wide. Both were illuminated at night by oil lamps. The east-west artery was called the Racecourse and was probably the longest boulevard in antiquity.

The population of Alexandria rapidly increased. No enforced re-settlement was needed; Egyptians, Greeks, and Jews came to the new city in droves. Alexander granted the Jews equal rights with the Greeks, and tens of thousands of these people of Israel, who for hundreds of years had been shuffled back and forth, now found a place where they were free from persecution. Alexandria acquired the largest Jewish community on earth at that time, similar to that of New York in our time.

The mutual permeation of Greek, Egyptian, and Jewish cultures, the mixture of peoples, the tremendous upturn of commerce made Alexandria during the third century a crackling, broiling world city, in comparison to which declining Athens and rising Rome must have made a sober almost provincial impression.

Alexandria became the largest commercial city on earth. Egyptian

products, such as grain and hemp, glass beads and papyrus, were shipped from there to all the Mediterranean countries. The Nile carried the goods from inner Africa to Alexandria; caravans brought products from Arabia, and from the Red Sea ports where Indian spices and jewels were unshipped. The trade with India is said to have brought a profit of 100 per cent. Until Augustus' time, Alexandria held the world monopoly on papyrus, glass, and perfume. Jewellery, carved ivory, and silver utensils wrought in Alexandria had little competition for hundreds of years.

On the basis of such wealth and under the administration of the initially most intelligent dynasty of the Ptolemies whose reign had begun with Ptolemy Soter, a former general of Alexander the Great, Alexandria burgeoned into the capital of the Hellenic world and the world centre of the sciences.

The abode of learning was the Museion, which might be translated as "Home of the Muses", and certainly embodied far more than today's innumerable museums to which it gave its name. The Museion in Alexandria was not only a place to house collections, it was also a centre of research and teaching—the first state-financed society for the advancement of the sciences.

The scientists had a zoological garden at their disposal. It too was the first in history. Ptolemy II, who reigned from 285 to 246 B.C., established in the Museion a library of nearly 700,000 papyrus rolls, embracing the entire Greek literature and all the knowledge in the ancient world. Ptolemy II also ordered the first translation of the Old Testament into Greek, so that it could be included in the library. Euclid, the father of geometry, did his research work and teaching at the Museion in Alexandria, and Archimedes of Syracuse naturally was among those who frequented the homestead of all the sciences.

The Museion belonged to the area of the royal palace, which comprised a quarter of the city; together with palaces, armouries, the Dionysos theatre and the tombs of Alexander the Great and the Ptolemies, it was set in a park studded with lakes and pavilions.

As a beacon of the new cosmopolitan city, Ptolemy II in 279 B.C. dedicated the famous lighthouse on the island of Pharos, which was connected with the mainland by a dam nearly a mile long; the people of antiquity counted the lighthouse among the Seven Wonders of the World. Its total height, including the statue of Poseidon that was atop the lighthouse, has been reported variously from 370 to 590 feet. Even the lowest estimate would indicate that it was taller than the Tower of Babylon, and it remained the tallest structure on earth until the late Middle Ages with their Gothic cathedrals. It served at first only as a daytime landmark for navigation, and only in the first century B.C. was it converted into a

lighthouse. Thus it came to have a function, but we may assume that it would not have been built so tall had it been intended only as a signpost.

It may well be that the lighthouse of Alexandria, whatever its avowed purpose, was—like the Tower of Babylon three hundred years earlier, and the skyscrapers of New York twenty-two hundred years later—a status symbol, an advertisement of glory, for a city that considered itself the navel of the world.

In 31 B.C. Alexandria had the opportunity to climb to even greater heights, to become the capital of the Roman empire; and it depended on the most famous citizen of Alexander's city—namely, Cleopatra.

Cleopatra, queen of Egypt, was twenty-one when Caesar, in pursuit of Pompey, landed in Alexandria in 48 B.C. Whether because he, then fifty-two, was captivated by her charms or because he hoped that by winning her he would also gain the treasures of Egypt, which would enable him to continue his war, he let himself be persuaded to oust by force of arms Ptolemy XII, the brother and spouse of Cleopatra, who preferred to have another brother share the throne. Besides changing the occupants of the throne, the war that then was waged resulted in the destruction by fire of the major part of the great library of the Museion.

Caesar brought both Cleopatra and their son, Caesarion, to Rome, where the liaison caused considerable resentment. After Caesar's death, in 44 B.C., she returned to Egypt with her son. There, three years later, the affair of Antony and Cleopatra began. Marc Antony, Roman consul of Herculean build and master over the eastern half of the empire, married the queen of Egypt in 36 B.C.—despite the fact that he already had a wife. According to the Greek historian Plutarch, Cleopatra's motive was to attract to herself always the specific Roman whom she considered the currently most powerful—using her charms to defend her empire.

On the other hand, it was by no means only her beauty which pleased the Romans. For Antony there was the tempting prospect of winning Egypt's wealth without drawing his sword. And even more tempting was the possibility of reigning over an Egypt that would be his own personal possession rather than a new Roman province.

It is hardly surprising that the marriage under these conditions was not a very happy one. In Shakespeare's *Antony and Cleopatra*, the moody queen orders her maid:

> . . . if you find him sad,
> Say I am dancing; if in mirth, report
> That I am sudden sick . . .

And Antony tells his wife to her face:

> I found you, as a morsel cold upon
> Dead Caesar's trencher . . .

Such bickering did not prevent the great Roman, on the other hand, from bestowing upon the three children born to them Roman provinces in the East as gifts. Octavian, who was soon to become Augustus and sole ruler of Rome, mused about this and thought it was going a bit too far. The sea battle at Actium (31 B.C.) decided that henceforth the Roman empire was to be ruled by Augustus in Rome and not by Marc Antony in Alexandria. When Augustus' troops approached the city of Alexandria, Antony committed suicide.

Apparently, Cleopatra again tried to win favours with the currently most powerful Roman. "My master and my lord!" she addresses him in Shakespeare's play rather ambiguously. When her cunning did not bring results, she—then thirty-nine years old—exposed herself to a poisonous asp. Caesarion was executed by Augustus.

Cleopatra was survived by the palaces. Even as late as A.D. 100 Alexandria was still the second-largest city of the Roman Empire. However, an insurrection of the Jews during the second century and the bloody encounters with the advancing Christians effected the destruction of entire sections of the city.

In A.D. 641 Caliph Omar I conquered Alexandria. All that was left of the great library after Caesar's war against the husband of his beloved was now used by the Arabs to heat the public baths. Omar is said to have justified this procedure with these words: "If those Greek works coincide with the Koran, they are of no use and need not be preserved. If they differ, they are dangerous and must be destroyed."

Thus ended Alexandria's scientific dominance; as a point of transit for trade with India it remained essential until the time when the Portuguese discovered the sea route to India. When Napoleon entered the city in 1798, it had 5,000 inhabitants. Today, there are 1.2 million, but of world fame there is little left.

In Alexandria the Greeks had created their last and greatest-city-state. Egypt was merely a backdrop for the magnificent metropolis, where only dirty villages existed, with the exception of the crumbling old capital of Memphis. Alexandria was located at the crossroads of three continents; it was the melting pot of the most advanced cultures in antiquity; the mother city of European sciences was on African soil.

Chapter 6

THE BLOODSTAINED QUEEN OF THE SEAS

ALSO ON African soil was the city which almost became Europe's undoing: Carthage.

The Carthaginians wore woollen garments that hung down to the feet, sandals, and pointed hats. Men and women bedecked themselves with bracelets and earrings, some even with nose rings, and both sexes used perfume. The women applied rouge to their faces, while the men proudly cultivated full, curly beards.

Their city was narrow and dirty; noise and stench filled the air in the winding lanes. The cult buildings of Carthage were mediocre imitations of Egyptian models, and the dwellings of the wealthy tried in vain to emulate Grecian types. Most of the houses, however, were boxlike and primitively built; wall against wall, roof jutting over roof, they crowded each other on the hillsides. Furnishings consisted mostly of large clay vessels in which water, flour, and even clothes were kept; the well-to-do might possess a rug and a wooden chest.

The people of Carthage knew neither circus nor theatre, and a cheerful disposition was a rarity among them, it seems. Everywhere they felt crowded by demons, and if they thought the gods were angered they burned their children in the fiery gullet of their effigy of their god Baal. They had their prisoners of war trampled to death by elephants, and military leaders who had suffered defeat were crucified.

They were successful and highly ruthless merchants and the most experienced seafarers of antiquity. When Hannibal was their leader, they aspired to world domination; in 211 B.C. they were at the gates of Rome.

Carthage was a colonial city, founded by a Semitic people who originally called themselves Canaanites, but were named Phoenicians by the Greeks, and Poeni by the Romans. Along the coast of today's Syria and Lebanon they built a close chain of mercantile cities, of which Ugarit, Byblos, Sidon, and Tyre were most important. The great cultural contribution of the Phoenicians was their development of the alphabet. More adaptable and easier to learn than the hieroglyphics used in the Euphrates and Nile areas, it became the basis for all European scripts. The Phoenicians also

contributed decisively to the growth of other cultures by procuring iron, tin, and silver from the most distant shores. They were the raw-materials dealers of antiquity.

The great period of the Phoenicians began about 1400 B.C., when the maritime hegemony of Knossos on the island of Crete was broken and the western Mediterranean became accessible. Already during the twelfth century, Phoenician ships accomplished the remarkable feat of sailing not only 2,480 miles to the Straits of Gibraltar, but past them on to Tartessus, the silver and tin city near today's Cádiz on Spain's southwest coast, which for a long time was the biggest supplier of metals in the ancient world.

Out of Tyre they founded colonies on the island of Cyprus, in North Africa, and in southern Spain to serve as bases for the journey which took two weeks and brought them to the broiling Atlantic Ocean. One of these bases was Carthage, which has the same meaning as Naples (or Neapolis—"new city").

Carthage, which probably was founded in the ninth century B.C., was located on a peninsula right in the centre of the Tunisian Gulf, a few miles north-east of today's Tunis. Only a hundred years later the colony began to outgrow the mother city of Tyre, when the Assyrian's incessant onslaught against the Syrian shore precipitated a panic-like emigration to Carthage. In the eighth century the old Phoenician empire was overrun by the Assyrians. In 574 B.C. Tyre fell into the hands of Nebuchadnezzar of Babylon, and in 332 B.C., it was destroyed by Alexander the Great.

In the meantime, Carthage had become the queen of the seas. In the Mediterranean west of Sicily the Carthaginians claimed absolute monopoly on maritime trade—which means, they sank every non-Carthaginian ship unless its captain could produce a commercial agreement with Carthage. They established settlements in western Sicily, on the islands of Malta and Sardinia, and especially in southern Spain. From these vantage points they controlled the economy of whole countries.

Unlike the Greek colonies, these harbour cities did not serve as settlements to accommodate the population overflow; they merely were bases for supplies and points of control in much the same way as the British established such bases (Gibraltar, Malta, Cyprus, Aden, Singapore) two thousand years later in order to secure their routes to India and Australia.

Owing to their tin supplies, the south-western tip of England, the peninsula of Cornwall, and Brittany were ports of call for the Carthaginian ships. Nebuchadnezzar in Babylon was able to make use of English tin because Carthaginian ships, with their combination of oars and sails, were capable of reaching Tenerife and Madeira.

About 500 B.C. the Carthaginian admiral Hanno sailed with a fleet of sixty ships along the western shore of Africa to the Cameroons —an accomplishment which was not surpassed until two thousand years later by the Portuguese. Following that achievement, goods from the Cameroons were transported to Carthage by caravans across the entire Sahara.

The heart of this world empire of seafaring and trading people was one of the typical city-states of antiquity—a large single city with a modest hinterland. Carthage's territory, within the boundaries of what is Tunisia, was probably close to 15,400 square miles in area, or about as large as Switzerland. The city proper consisted of a walled-in area of almost eight square miles, three of which were covered by the densely settled old city, while the major part was taken up by the suburbs green with gardens and by the cities of the dead. Though these latter were not accorded the same importance as those in Egypt, they nevertheless were of greater significance than our cemeteries are. The city's population at the time of its peak during the third century B.C. may be estimated at 300,000. We must assume that the figure of 700,000 mentioned by the Greek geographer Strabo applied to the entire territory of Carthage.

THE LARGEST WALLED-IN CITY AREAS OF ANTIQUITY

	Area in square miles	Population
1. Babylon	115.5	350,000
inner city	1.5	
2. Pataliputra	10.8	500,000
3. Carthage	7.7	300,000
4. Athens-Piraeus-Phaleron ..	5.8	110,000
Athens proper	0.8	
5. Syracuse	5.4	400,000
6. Rome	5.3	1,100,000
7. Alexandria	3.6	700,000
8. Thebes (Egypt)	2.9	?
9. Nineveh	2.6	120,000
10. Uruk	1.7	100,000

An artist's impression of the lay-out of the Temple of Anu in Uruk. Uruk, in Babylon, was one of the world's earliest cities; by the third century B.C. it probably constituted the world's first Big City.

The cities of Babylon and Egypt were once protected by walls as strong and forbidding as these which can still be seen surrounding Marrakesh in Morocco.

All that remains of Babylon: ruins of the citadel.
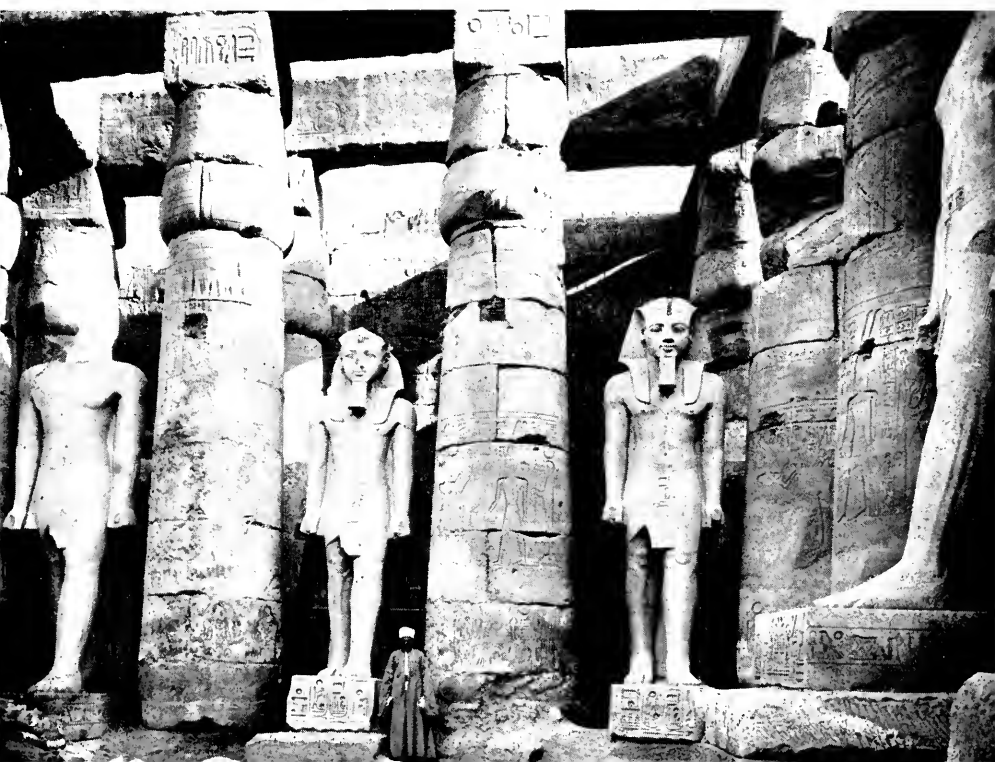
Eighteen-foot high statues of the Pharaoh Rameses II in the Temple of Luxor at Thebes, Egypt.
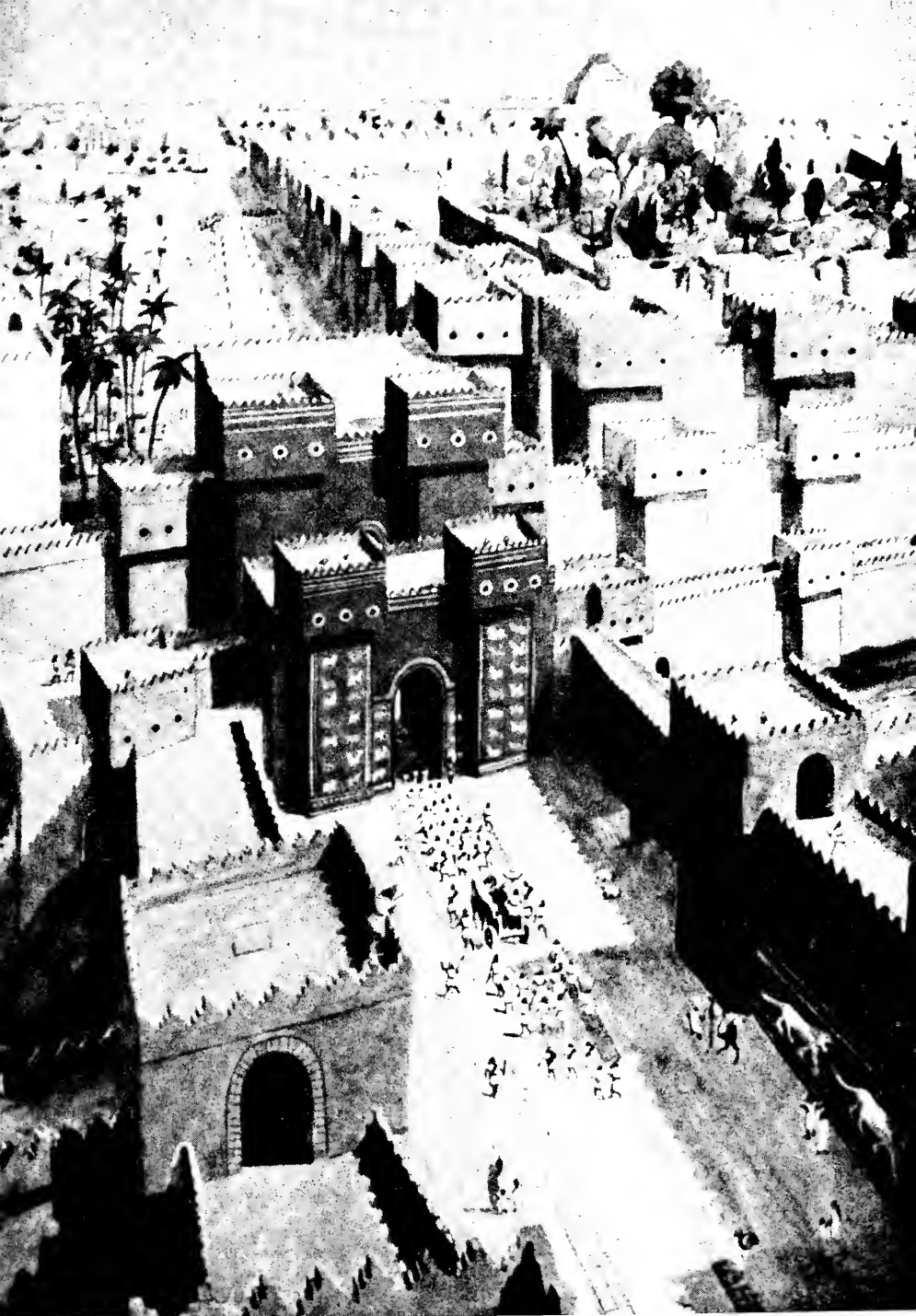
Babylon in the time of Nebuchadnezzar (attempted reconstruction). In the foreground, processional road with reliefs of advancing lions (bottom right); centre, the Gate of Ishtar, with above it, right, the highest terrace of the Hanging Garden in the South Fortress, Nebuchadnezzar's principal palace. Behind it, the temple area, with 280-foot tower.

Food storage chambers and oil containers in the ruins of the Palace of Knossos.

Athens: the Acropolis, which dominates the city now as in ancient times.

Among the many monuments to Roman city building in three continents round the Mediterranean, the ruins of Baalbek in present-day Lebanon are the most magnificent. From Scotland to the Red Sea, rich cities with temples, schools, theatres and baths speak for the greatness of Rome—and to the old Roman view that the only kind of life that was worth while was town life.

An example of Roman grandeur: the palace built in Rome by the Emperors Tiberius and Caligula in the first century A.D. (attempted reconstruction).

The garden in the house: a villa at Pompeii, near Naples, which was destroyed by an eruption of Vesuvius in 79 A.D.
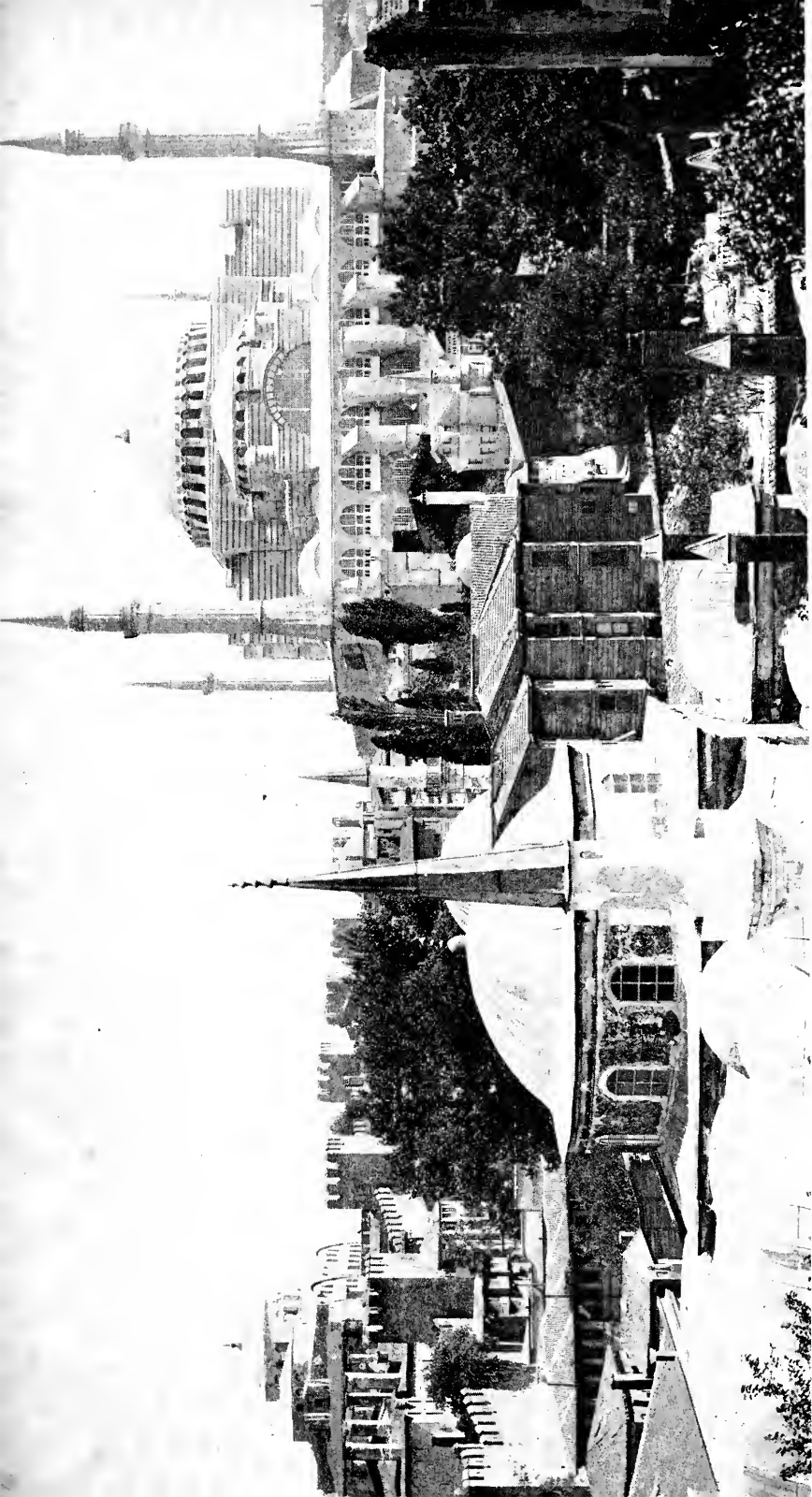
Byzantium–Constantinople–Istanbul, the picturesque metropolis on the gateway of Europe and Asia. A view of St. Sophia with, from left to right, St. Iren, the walls of Topkapi Palace, Yerebatan Mosque, and, far right, part of Justinian's sixth century underground water cistern which used to supply water to the Grand Palace of Justinian, and in Turkish times to the Gardens of Topkapi Palace. Fifteen hundred years ago Istanbul was the political and economic centre of the world.

Tower of an eleven-hundred-year-old mosque at Samarra on the Tigris, the
megalomaniac capital of the ninth century caliphs.

The Great Mosque of Delhi; until it was ransacked by the Shah of Persia in
1739 Delhi was one of the world's most magnificent cities.
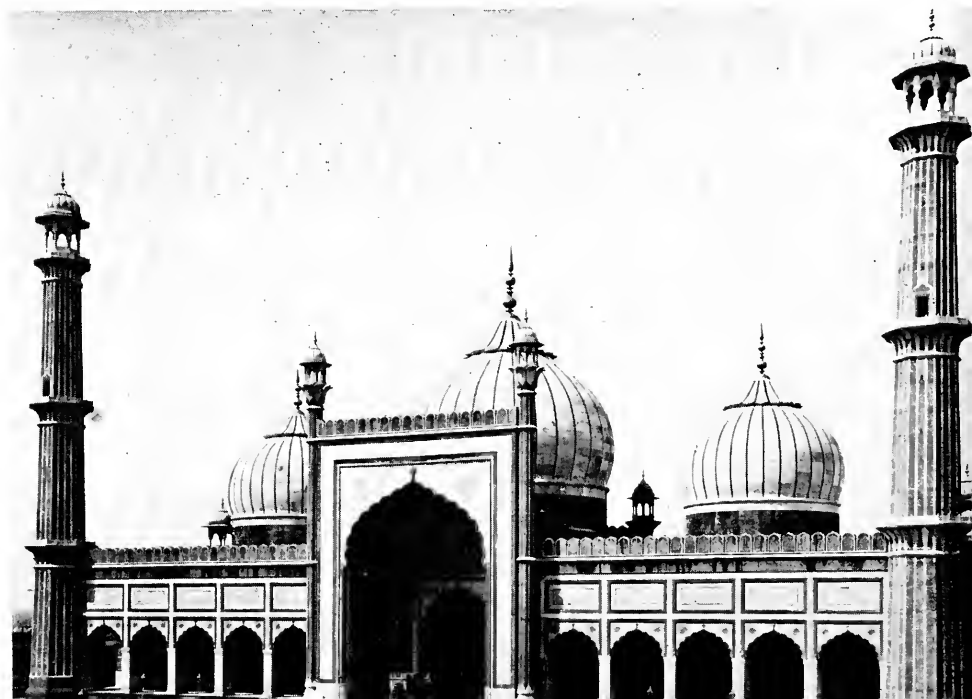
For more than five hundred years, Peking was the biggest city in the world, and until the Communist seizure of power it changed very little. It cannot have looked very different when Marco Polo first brought Europe its first news of the great city in the cold north of China as well as of that other east Asian metropolis, Hangchow.

Below, a view of Peking today.

Great founders and destroyers of cities: Alexander the Great (left), the destroyer of Tyre, Persepolis and Samarkand, and the founder of more than seventy cities, including the great city of Alexandria—and Kublai Khan, the founder of the new Peking.

The ruins of the Temple of Angkor, Indo-China—the last remains of a great city that sank into the jungle five hundred years ago.

One of the finest examples of mediaeval architecture in Germany, this building
was erected at Hildesheim as the headquarters of the Butchers' Guild in 1529.
It was destroyed in an air raid in March, 1945.

Berne: Part of the Old Town on the peninsula formed by a curve of the River Aare.

Nuremberg: Winter view of the Albrecht Dürer House before its destruction in the Second World War. It has since been faithfully reconstructed.

Idyllic small-town scene at Visby in the Swedish island of Gotland in the Baltic. From the eleventh to the fourteenth century Visby was the most important town in Scandinavia and one of the world's most important ports. Then the herring catch failed.

The towers of Ghent in Flanders: half right, the Belfrey, 350 feet in height. Round about 1300 this wealthy textile city with 60,000 inhabitants was one of the biggest in Europe.

Statuary at Florence. Looking towards the Uffizi Gallery from the Piazza della Signoria. In the foreground a copy of Michelangelo's *David* (the original is in the Accademia in Florence). Behind it is Bandinelli's *Hercules*.

Venice: The colonnade of St. Mark's and the Cathedral clock-tower. On the right, is the Doge's Palace; on the left, one of the winged lions of St. Mark, erected in the 12th century, a witness to the pre-eminence of this mediaeval city-state.
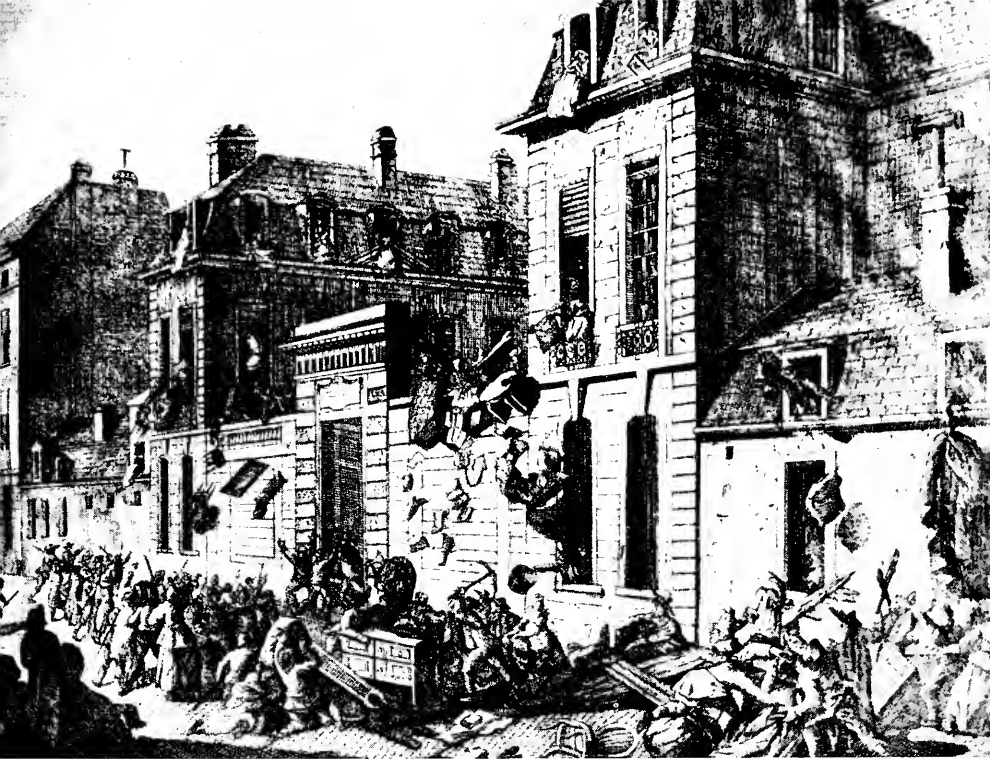
Paris: Looting during the French Revolution. The mob storms the Palais de Castries (November 1790).

The Place de l'Étoile, with the Arc de Triomphe. Lower right, the Avenue des Champs-Élysées.
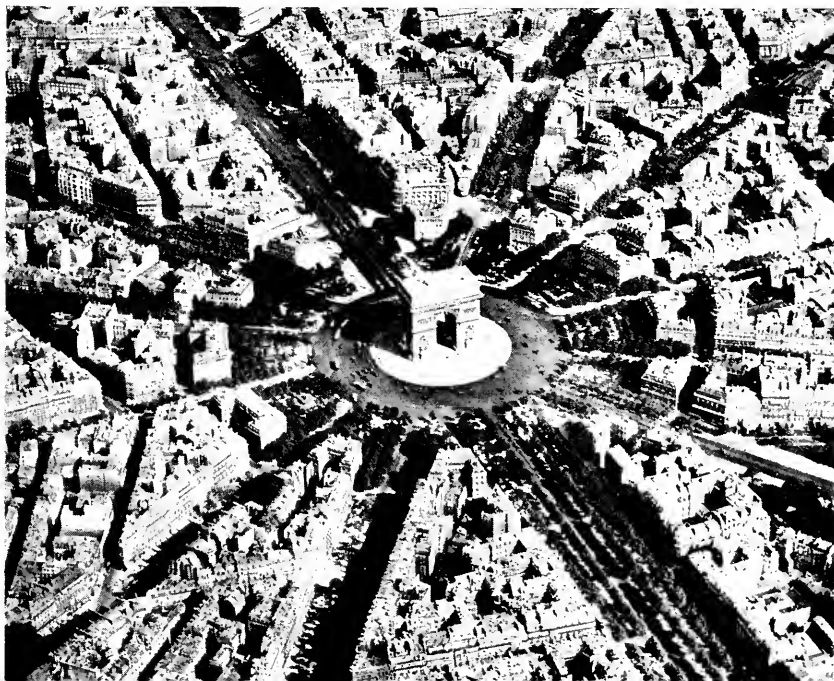
"Over London by Rail"—a view of London slums in 1872, by Gustave Doré.

A 16-storey block of flats built by the London County Council as part of the new Golden Lane Estate in the heart of London.

Rebuilding of Glasgow slums—a modern block in the Gorbals.

The nucleus of the old city was the citadel or upper city, a hill protected by an additional wall, where the castle, several temples and altars, statues of gods, and houses for the priests were squeezed so tightly together that just barely enough room was left for the smallest of lanes. The centre of the lower city was the market place midway between the castle and the harbour. The lower city was hilly too, and there were steps in the streets, which edged in between the multi-storied houses and rather resembled gloomy secret passages.

As customary in the Orient, the houses turned a rather drab wall toward the lanes, and had a few windows, without glass, opening on to the inner court, which in general was much smaller than in ancient Babylon. Some of the houses were veritable tenement buildings, up to six storeys high, especially those along the steep lanes that led to the upper city. In these houses the entire ground floor was planned as storage space and shelter, with no windows at all. Stone pillars reinforced the pressed clay or the air-dried bricks that served as building material everywhere in the city. Flaky whitewash, leaning walls, cracks in the structure, now and then a building that had collapsed, seem to have been nothing unusual.

The street scene was not complete without the water peddler with horse or ass, slaves carrying tremendous loads on their heads, armourers who worked at their anvils under the open house door, children ringing bells to invite the passer-by for a visit to the public baths, and cackling chickens and roaming dogs.

Next to the ships carpenters, the smiths were the most important craftsmen of the city. For the more highly skilled working of metals for producing tombstones and ornaments they employed workers from Sicily, mostly prisoners of war, because for centuries there were wars with Syracuse. Many Carthaginians lived on fishing or on the harvests from olive, fig, and wine-growing in the suburban gardens.

Besides the priests, the masters of Carthage were the big merchants and shipowners. The priests in the service of the city goddess Tanit and of the cannibalistic god Baal (also Baal Hammon, Melkart, or Moloch) were easily recognizable by their sacklike linen garments and their fully shaved heads. They were the guardians of the gory rites of a religion that, originating in barbaric ancient times, had accidentally strayed into a cosmopolitan city.

Even in Hannibal's time, the Carthaginians were separated by an abyss from rational thinking for which the Greek philosophers had paved the way, and from understanding reality. They never outgrew the stage of the mystic conception that only he can survive who incessantly placates the all-powerful demons, and that the best way to mollify an angry god was by sacrificing a human being.

One should not forget, however, how little an individual human life was valued before Christianity began to spread. To slay a slave was not considered murder, because the slave was not considered a human being. The life of a child was not as valuable for the citizens as it is for us today. The Spartans abandoned malformed infants. And even if children were healthy, abandonment in order to get rid of unwanted offspring was an officially sanctioned practice in Rome and Athens; the children either perished most deplorably or they fell into the hands of a slave-dealer.

In Ur all the members of the household followed their master to their deaths in the kings' tombs. In the Book of Kings we read about the king of the Moabites: "Then he took his eldest son . . . and offered him for a burnt offering upon the wall." The prophet Jeremiah tells us that the Lord says: "For the children of Judah have done evil in my sight . . . and they have built the high places of Tophet . . . to burn their sons and their daughters in the fire." And in Genesis: "Abraham stretched forth his hand, and took the knife to slay his son."

It is astonishing that the Carthaginian human sacrifices still occurred as late as the second century B.C., and in a cosmopolitan city one of whose characteristics it usually is to speed up the dissolution of tradition.

When Agathocles of Syracuse approached the gates of Carthage in 310 B.C., the city tried to avert the disaster by feeding five hundred children into the jaws of the Baal statue, within which a fire had been prepared by the priests. The victims were wrapped in black cloth and, some still alive, others with their throats cut, placed upon the red-hot arms of the bronze statue that had been covered with ointments. Priests standing behind the statue pulled its arms by means of thin chains, so that the children tumbled into the god's fiery gorge. Other priests flagellated themselves to the accompanying shouts of staring crowds, or they slit their own cheeks. The rolling of drums and a horrible clatter of horns and bagpipes mixed with the general roar. It happened that the troops of Syracuse were repelled, but not one Carthaginian would have thought of ascribing the victory to any other circumstance than to Baal's appreciation of the burned children.

This, then, was the city of Carthage that the Romans destroyed. It took three wars to accomplish it; they extended over a span of 118 years; the actual fighting took 44 years and brought Rome close to ruin.

The revulsion which the Romans felt against the human sacrifices in Carthage is creditably attested to; but it was less a reason for the war than a welcome opportunity for propagandizing it. A collision was simply inevitable between the two giant cities, both of which

were determined to rule the Mediterranean area. There is nothing comparable to the hatred between two rival cities that seem to think that there is room in the world for only one of them. After Babylon and Nineveh, after Sparta and Athens, this was now demonstrated by Rome and Carthage.

In the First Punic War (264 to 241 B.C.), Carthage lost its possessions in Sicily. In the Second (218 to 201 B.C.), Hannibal, the twenty-eight-year-old general, setting out from the part of Spain that belonged to Carthage, marched through southern France, crossed the Alps with forty war elephants, and in the autumn of 218 with 26,000 men took up positions on the river Po with the intention of splitting the Italian boot from top to bottom.

In 216 B.C. Hannibal reached southern Italy, far south of Rome, and defeated the far more numerous Romans in the famous battle of Cannae. Carthaginian armies landed on Sicily and Sardinia, and Syracuse and Capua defected to Hannibal's side. With the exception of Rome and its environs, and a few bases on the west coast, all of Italy was in Hannibal's hands.

The Romans mobilized all the remaining citizens, and even a part of their slaves. They would no longer risk open battles but conducted a tenacious guerrilla warfare of many years duration against the enemy's supply lines, his camps, his cities, and thus weakened him decisively. In 211 B.C., when the scale was already beginning to tip in Rome's favour, the Carthaginians, in a last effort, marched directly against Rome, and the cry of horror, "*Hannibal ante portas!*" reverberated all over the city. The assault was unsuccessful, the Carthaginians were edged farther and farther into southern Italy, and in 203 B.C., after a campaign of fifteen years, Hannibal finally rushed back to Carthage, because in the meantime the Romans had landed in Africa and were threatening his capital. In 202 B.C. Hannibal was defeated near Zama. The war was lost. Carthage had to surrender Spain and was forced to destroy all its warships, but the city itself remained untouched.

Its fate, however, was taking shape when in 155 B.C. Marcus Porcius Cato, the mouthpiece of the Roman big landowners, adopted the habit of finishing all his speeches—no matter on what subject—with these words: "*Ceterum censeo Carthaginem esse delendam*" ("Moreover, I am of the opinion that Carthage must be destroyed"). The wine and olive cultures on which Carthage had successfully concentrated after the loss of its possessions across the sea were looked upon as an intolerable competition—that is, at any rate, by those Romans who tried to grow these products with less success.

From a visit to Carthage Cato brought back a bunch of magnificent figs that he distributed among the members of the Senate in order to exemplify the dangerously high level of Carthaginian

agriculture. And after he had fed the Senate his *Ceterum censeo* for six years, it came to pass; in 149 B.C. Rome put the preposterous ultimatum to the Carthaginians, demanding that they immediately move their city away from the coast to the interior of the country. When, as was to be expected, the Carthaginians refused, the Romans set out to destroy Carthage.

For almost three years they laid siege to the city. Its first line of defence, on the two-and-a-half-mile-wide isthmus that connected the peninsula with the mainland, was a sixty-foot-wide moat with two earth walls. Carthage proper was protected by a wall that was forty-two feet high and included casemates for 24,000 soldiers, 4,000 horses, and 300 war elephants. To the last man the Carthaginians mounted the walls to defend the city. Women donated their hair, to be braided into ropes for the catapults. When Scipio's troops stormed the large wall, the surviving 50,000 inhabitants entrenched themselves in the upper city and continued fighting. The Romans had to fight from house to house, to subdue them man by man.

Scipio laid fire to the ruins of Carthage, which burned for seventeen days. What the flames did not consume the soldiers tore down. Then they ploughed the soil and seeded it with salt. The city of Carthage had disappeared; the Romans no longer had a competitor.

Later, Augustus settled three thousand Roman colonists on the empty site of the former Carthage. Within a period of a hundred years the city rose again and became the third-largest city of the Roman empire. It also became its most infamous seat of depravity. In A.D. 439 the Vandals wrested the new city of Carthage from the Romans and made it the capital of a Germanic empire on African soil. The Arabs finished off the work of destruction in A.D. 697. But a small town by the name of Carthage exists again today.

Many cosmopolitan cities have committed acts of barbarism outside their city walls—Nineveh and to some extent Rome, Samarkand under Tamerlane, Madrid and London in the early days of their colonial expansion; Berlin and Moscow in the twentieth century. Others suffered bloody relapses into barbarism within their own confines—Rome during the time of civil strife and the persecution of the Christians, Paris during the horror years of the French Revolution, St. Petersburg when it became Leningrad.

Carthage, however, appears to be the only case where barbarians created a world city which was barbaric and remained barbaric, and never showed the faintest indication of any kind of cultural development. "The she-wolf who was to conquer the earth," Herder wrote about Rome, "first had to test her strength in a fight with an African jackal until in the end she miserably devoured it."

132

THE GLITTERING MISERY OF ROME

THE SHE-WOLF Rome devoured many sheep. Carthage, Corinth, Jericho, Jerusalem, Londinum (London), Piraeus, Seleucia, Troy— these were but a few of the cities that the Romans destroyed; a complete list would fill pages. Yet, they also rebuilt cities they had destroyed. All these, together with others that had been less harshly dealt with, formed the framework of an empire that was the biggest city-state in history—an empire which, even with such giant cities as Alexandria and Antioch, was merely one big hinterland of the capital city, Rome.

The development of the small town Roma out of a village on the Palatine hill high above the Tiber River, and the expansion of this small town, within the span of only a few centuries, into the city of Rome that dominated the world, is one of the most amazing chapters in history. It is a chapter filled with fire and blood, plundering and annihilation, general massacres and self-destruction. The world in which Rome existed was spared nothing—neither were the Romans themselves.

According to legend, a malevolent uncle abandoned the infant twins Romulus and Remus, descendants of the Trojan hero Aeneas, on the river Tiber. The stream carried them ashore, where a kindly she-wolf suckled them. A shepherd, finding them, took them to his home, where his wife reared them. On April 21, 753 B.C., the brothers, now grown up, undertook to found a city. Then Remus was slain by Romulus, as Abel was slain by Cain, the first city founder in the Bible. Here again, then, a city begins with a fratricide.

But why did Remus have to die? Because in a gesture of ridicule he jumped over the city wall which was as yet not very high. This was a crime committed against the concept of the city, and Romulus punished it with death. In our day a city would be condemned to death if it did not jump its walls. At that time, however, Romulus' action was considered laudable—even more, it was taken as a matter of fact, and Romulus was honoured as a god.

Historians, however, trace the origin of Rome to a little village established on the Palatine hill in the central Italian area of Latium probably in the tenth century B.C. Some two hundred years later a settlement on the near-by Quirinal hill followed. In the sixth century

B.C. the two villages united and became the small town of Roma, which in the course of time was joined by five additional hill settlements. The seven hills were about twenty miles from the coast, above the marshy east bank of the Tiber, which right there became navigable. In the opinion of at least one later observer—Goethe, who visited Rome in 1787—"No settlement of ancient peoples was so badly located as Rome."

In the sixth century B.C. this most recently unified hill town fell under the rule of the Etruscans, who were masters in northern Italy; the southern part was Greek. About 510 B.C. the Etruscan city king was driven out by native noblemen, who replaced him with two consuls elected for one-year terms. The French political philosopher Montesquieu suggests that it was this development that set Rome on the road to great power. "During their lifetime," he writes, "the princes have periods of great ambition which alternate with periods when other passions, even complete idleness, take precedence. Since the Republic, on the other hand, had heads of state who changed every year and who endeavoured to be so outstanding during their term of office that they might be considered for other offices afterward, their ambition did not allow them a moment's rest. They used the Senate as the stage from which to suggest war to the people, and day by day they pointed out new enemies . . . For the people, war was almost always a welcome undertaking . . . As Rome was a city without trade and practically without artisans, pillaging was the only means by which the individual citizen could enrich himself."

The gradual subjugation or destruction of the neighbour communities helped the little town to gain wealth and power. Upon the steepest of the seven hills, the Capitoline, it built a strong castle and a temple of Jupiter, which was to be the city sanctuary. By draining the marshy Tiber lowlands, Rome gained room for expansion. However, the city could by no means measure up to the large Italian cities—Tarquinia, the Etruscan capital; Capua, the rich trading centre north of Naples; and especially the Greek colonial cities of Tarentum, Agrigentum, and Syracuse.

About 386 B.C. everything seemed to have come to an end when the Gauls ravaged the area and burned Rome to the ground, all but the Capitoline. The Romans, however, rebuilt their city. In place of the earth wall, which had offered no resistance to the onslaught of the Gauls, they constructed a stone wall, thirty-three feet high; it is erroneously called the Servinian wall (after the city king Servius Tullius who reigned during the sixth century B.C.), and parts of it, overgrown with weeds, can still be seen today. The Romans also enlarged their army by extending to all citizens compulsory military service, which formerly had been limited to men

of noble birth. This newly acquired military strength enabled them in 338 B.C. to defeat the Latium cities after a revolt had been staged against the Roman hegemony.

Since the Etruscan power was crumbling and the Greek colonies remained as disunited as their homeland, Rome was now the strongest power in Italy, even though it had an area of less than 5,000 square miles, with an estimated 400,000 inhabitants. Rome itself was still a peasant city whose name was hardly known in Greece and whose inhabitants, in the tradition of their forefathers, were still proud of their long hair and their full beards. By 264 B.C. Rome had gained supremacy over the southern two thirds of the Apennine peninsula and was the largest state west of the Greek world; it had taken four bloody wars against the Samnites, from 343 to 290 B.C., and some fighting against disloyal allies in southern Italy to accomplish it.

In 264 B.C., the very same year that finally brought peace in Italy, the first of the wars against Carthage began. Its victory in the First Punic War extended Rome's power for the first time beyond the Italian mainland, and through victory after victory within the next hundred years Rome secured its hegemony over the entire Mediterranean realm, which had never before been united in one hand. In 241 Sicily became Roman. In 238 Sardinia and Corsica followed. In 229 the Romans defeated the Illyrian pirates and settled in the area we know as Yugoslavia; in 225 they conquered northern Italy, in 206 the largest portion of Spain. Rome's well-disciplined citizen army proved itself superior on all fronts.

When Hannibal, who from 218 to 203 B.C. was stationed in Italy, marched against Rome, everything seemed lost again. However, in guerrilla warfare of tremendous intensity, the Romans weakened his troops until they could beat him. But the Carthaginians had devastated all of southern Italy, had burned down all villages and farmhouses and had thereby initiated a fundamental social change which later was to contribute to Rome's decline. A steady stream of impoverished peasants descended upon the capital, where they created a proletariat whose mood made the emperors tremble. The depopulated parts of the country fell into the hands of speculators and big landowners who worked their estates with slave labour. The slaves were imported from the defeated countries, even to the city of Rome itself.

Following Hannibal's defeat, the city experienced years of growth and development. While Roman soldiers established themselves in Greece and Syria, palaces and tenement buildings mushroomed in Rome. The first street was paved in 174 B.C. The Forum Romanum, surrounded by temples and shops and located between the Capitoline and the Palatine, was the market and assembly place where

business deals in grain and cattle, in shiploads of wine and slaves were transacted, where houses and building lots were traded at inflated prices, where country estates in Italy, stone quarries in Sicily, ore mines in Spain, and plantations in Africa were offered for sale. Almost overnight the peasant city changed into an important financial centre and became the nucleus of a giant empire. A wealthy merchant class and a considerable body of civil servants developed. The rich enjoyed Greek comfort. The number of proletarians and slaves grew steadily. Roman soldiers destroyed Carthage and Corinth, conquered Asia Minor, and constantly provided fresh supplies of gold, land, and slaves.

But the capital could not enjoy its newly acquired prosperity. It was a seething volcano. In 133 B.C. Tiberius Gracchus, a tribune of the people, was assassinated on instigation of the big landowners' party, because he wanted to effect a land reform in favour of the farmers. His brother Gaius repeated the attempt and this whole question caused a civil war in 121 B.C. When Gaius Gracchus was defeated, he took his own life; three thousand of his followers were executed without trial. He was survived by a law which required the state to sell grain at a price below its regular market value to the inhabitants of the capital. He had wanted to sway the poor completely to his side, and the unemployed proletarians cheered him. With this measure he had created an inducement not to work—even more, an inducement to move to Rome for the sole purpose of enjoying idleness. This law, which in the end caused the actual giving away of grain, lured hundreds of thousands into the city; it bred a mob that took it for granted that the provinces were being depleted so that they could be fed.

While the social unrest and upheaval grew, the Cimbri and Teutones in 101 B.C. penetrated into northern Italy. From 90 to 88 B.C. Rome quelled an insurrection of its Italian allies; and no sooner had this war ended than the Roman commander in chief Sulla took the capital by storm, in order to assure himself of being given the supreme command for a war in Asia Minor. The members of a group in favour of giving that command to his rival, Gaius Marius, were slain. But as soon as Sulla was occupied in the East, Marius returned to Rome and had Sulla's supporters executed by the hundreds. From 84 to 82 B.C. Sulla had to fight his way home in a bloody civil war; after his return to Rome he massacred more than 10,000 of his opponents during a three-year reign of terror.

In 73 B.C. the Thracian gladiator Spartacus assembled in Capua an army of 60,000 men—gladiators, fugitive slaves, and proletarians —with whom he plundered the country and marched toward Rome. After bitter fighting, which lasted two years, he was annihilated. A *coup d'état* attempted by Catiline in 63 B.C. was averted by the

narrowest margin. In Rome proper, armed gangs were wielding the power.

From 49 to 45 B.C. Italy was bleeding from the civil war between Caesar and Pompey. Caesar chased his son-in-law clear to Egypt, from where he took Cleopatra back to Rome; then he set himself as the ruler of the empire. In 44 B.C. the Senate granted him dictatorial powers for life. In the very same year he was murdered by Brutus, the leader of a conspiracy of the conservative party in the Senate, and a new civil war resulted.

Marc Antony and Octavius, Caesar's eighteen-year-old great-nephew and foster son, competed for the succession. After briefly warring against each other, they formed an alliance and set up a reign of terror. Caesar's adversaries and the followers of the Senate party were murdered by the hundreds, among them the eminent orator and statesman Cicero. Octavius and Antony divided the empire between themselves; Octavius took the western part, Marc Antony the eastern (Cleopatra included). A second war broke out between them and in 31 B.C. Antony, defeated, died in Alexandria, Octavius made a triumphant entry into the capital and went on to become Rome's first emperor; and Rome embarked on an era of peace and grandeur.

To the Romans, now, the world was their property. Rome battened on the wealth of its subject lands and gave almost nothing in return. Now, under Augustus, it could, with even greater justification than Nineveh, say of itself, "I am it, and there is no other." Augustus is reported to have said that he had taken over a city of wood and brick and that he had left it of marble. He built an imperial palace atop the Palatine, and a number of mighty temples and new aqueducts. He adorned the Martian Field at the western edge of the city with temples, theatres, statues, and a mausoleum amid green parks, and included it, as well as a parcel of land west of the Tiber, within the city limits.

But even with these additions, Rome was still only little more than five square miles in area—smaller than Carthage or Syracuse. Estimates on the population of this area vary widely, ranging from half a million to almost two million. Most plausible would seem a figure of slightly more than a million, at least during the second century, when, with the empire at its peak, the metropolis was largest. Accepting that figure, we find that an average of 80,000 people lived in the space of 0.386 square mile. This density seems almost incredible compared with our modern cities; New York has 9,400 people living in such an area, Dusseldorf 4,400, Vienna 4,300, Zurich 2,800, Hamburg 2,400. But in ancient Alexandria 76,000 people crowded each other in an equivalent area, and in modern Paris we have the considerable figure of 37,000.

Paris affords a good measure for comparison in that it is one of the very few cities with populations of millions, whose official city area is still confined to the once walled-in terrain. The suburbs and far-flung private-estate sections, for the record at least, do not count as Paris, so that Paris consists mostly of tenements and commercial buildings, besides the stately public buildings, exactly like most of the cities in ancient times, and it is probably also very similar to Rome in the proportion of the three different kinds of buildings in the over-all picture.

In ancient Rome the population density was more than twice that of Paris today, and in many sections of the French capital houses are drab and lanes are narrow. But that is not all: more than half of Rome's population squeezed together in less than one third of the city area—namely, in the old city of the seven hills, which was enclosed by the Servinian wall. For the inner city, therefore, this represented a density of 150,000 people per 0.386 square mile— a figure that in our time is exceeded only in the most wretched quarters of such Asian cities as Calcutta, Bombay, and Hong Kong.

THE LARGEST CITIES IN ANTIQUITY

(Estimated population figures)

1. Rome	1,100,000	2nd century A.D.
2. Alexandria	700,000	1st century B.C.
3. Seleucia	600,000	3rd century B.C.
4. Pataliputra	500,000	4th century B.C.
5. Syracuse	400,000	4th century B.C.
6. Babylon	350,000	6th century B.C.
7. Antioch	350,000	3rd century A.D.
8. Carthage	300,000	3rd century B.C.
9. Cuttack (India)	300,000	2nd century B.C.
10. Agrigento	200,000	400 B.C.
11. Ephesus	200,000	3rd century A.D.
12. Caesarea (Cappadocia)	200,000	2nd century A.D.

These sober figures even by themselves suggest what is reiterated by further research—namely, that from the viewpoint of living conditions the great city of Rome was a tremendous retrogression compared with those thousands-of-years-older city cultures on the Euphrates, Nile, and Indus rivers; indeed, it was one of the most miserable cities that ever existed. The famous marble palaces emerged like islands from an ocean of misery and wretchedness.

When, after the victory over Hannibal, the immense torrent of human beings began rushing into the metropolis, the city began to grow in height. Nobody seems to have thought of making it grow

in width. Rome was covered with tenement buildings, many of them six to twelve storeys high—more than the houses of European industrial cities had in the worst days of real estate speculation during the nineteenth century. Some buildings were as many as 115 feet high when Augustus imposed a limit of 70 feet—which still allowed for seven stories (since it did not seem wrong that tenants touched the ceilings with their heads). And the lanes often were only ten feet wide. That meant lurid ravines and gloomy lower floors which never were reached by a sunbeam—not to mention the basement quarters, which were not even equipped with windows. Nero paid some attention to the width of the streets: he limited the height of houses to not more than double the width of the street. In Germany today, as a general rule, a house may be only as high as the street is wide.

The apartments in those Roman tenements were little more than mere sleeping quarters. They consisted mostly of a single room, which could be reached through an arcade on the inside of the courtyard, and seldom exceeded a floor space of twelve square yards. Twenty-five such living quarters to one floor, a hundred and fifty to one house, five hundred people under one roof, was nothing exceptional.

The tenants paid exorbitant rents for their dingy holes. "For high prices miserable lodgings, expensive the feeding of servants, and expensive a frugal meal!" the satirist Juvenal wrote, about A.D. 100. The land was owned by a few speculators who grew fat on the rents from their tenement buildings; one of the best known among them was the famous statesman Cicero. In order to avoid the trouble of collecting the rent, they leased their houses to agents who were permitted to squeeze as much money as they could from their tenants. Moreover, there were large-scale professional lessees of tenements who worked through sub-agents, so that they too did not have to tangle with the tenants.

The tenant was in no way protected against the sudden termination of tenancy through eviction. The owner of the building could evict at any time, and in case of an ensuing lawsuit hardly ever was required to do more than pay a small sum as compensation to the evicted tenant. To find a new hole to live in was difficult and often meant paying an even higher rent. During the civil wars of the first century B.C., the practice of collecting exorbitant rents was a very popular topic for propaganda, and both Caesar and Augustus ingratiated themselves with the little man by freeing him from paying rent for a whole year.

In their turn, the owners who were hurt by this measure, did everything in their power to get their share despite such interferences. They built the foundation walls so weak and the framework

of the upper stories so flimsy, that the collapse of a tenement building was a frequent occurrence. Plutarch, about A.D. 100, designated dilapidation and conflagration as the "destroying angels of Rome". The officials did not see any reason to intercede.

If a tenement building suddenly was enveloped by flames, the tenants on the upper floors very seldom had a chance to get to safety. To get out from the attic down the two hundred steps of a narrow wooden stairway was almost impossible. Those who were spared such actual catastrophes suffered from perpetual dampness in the lower floors or found the summer's heat unbearable in the upper ones.

All this makes one wonder why, in spite of such miserable accommodations and such shamefully high prices, the great masses of people insisted so strongly on living in Rome rather than living a few miles outside the city limits where, according to Juvenal, one could buy a handsome house for the same amount that was paid in rent for one of these dingy holes in Rome.

There were reasons, some of them peculiarly Roman, some characteristic of the city as such. The inhabitants of Rome could get bread at reduced prices, or even free of charge—which was an important though mainly psychological point, since bread and rent combined were probably still more expensive in the city than in the country.

Another reason was that in antiquity it was technically difficult indeed to live outside a large city, if one wanted to work or find one's entertainment in that city. The longest diameter of Rome was a little more than three miles—which meant a walk of two hours, since there were no straight thoroughfares as in Babylon or Alexandria and since one had to navigate through the crowds of people in the inner city. This was not surprising because the ancient and southern predilection for the street as a gathering place in Rome was combined with excessively high houses on extremely narrow streets, and an army of unemployed. Juvenal describes it very vividly:

> No matter how I hurry, I'm hampered by the crowds
> Who almost crush my ribs from front and back; this one
> Strikes me with his arm, another with a heavy board;
> My head is brushed by a beam, then I have an encounter
> With an oil-barrel. Mud clings to my legs in heavy clods,
> Large feet step on mine, and my toes get painfully
> Acquainted with a soldier's nailed boots.

Actually, larger distances were almost not manageable. Nobody thought of introducing public means of transportation within the
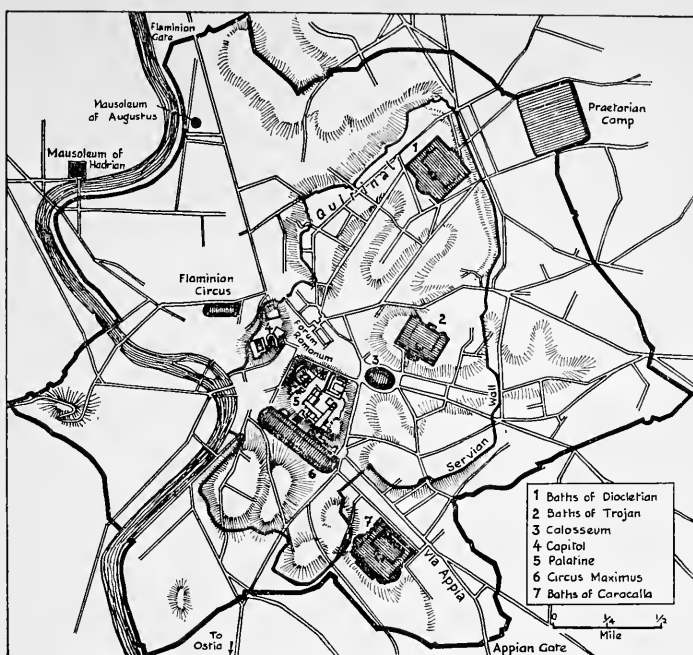
Plan of Ancient Rome.

city limits until modern times. Besides, the streets would have been too narrow, too steep, and too primitive for horse-drawn omnibuses as they came to be used during the nineteenth century in European and American cities. The wealthy had themselves carried in litters above the heads of the people. Caesar had restricted the traffic of wagons and carts for freight transport to the night hours, so that the city of antiquity fully belonged to the pedestrian.

But these rationally conceivable reasons still do not explain the clinging to Rome. One very important consideration for the Romans, as much as for the Greeks and Babylonians, was the fact that the city was one complex unit, the limits of which could not be altered arbitrarily. Rome had grown beyond the Servinian wall, and there was no new wall to enclose until the reign of the emperor Aurelian, from A.D. 272 to 279. The expanded metropolis, nevertheless, had clearly defined city limits, and they were incomparably more important than they would be today, because they had been drawn not by officials, but by the priests.

The sacred city boundary was called the pomerium, a beltlike

141

area marked by a furrow around the city. Funerals were prohibited within the pomerium; martial law was applicable only on the outside. In the early days of the city, the Luperci (that is, "those who drove the wolves away") would once a year run the course of the pomerium, originally to protect the cattle from the wolves; later, the Luperci, who were priests, were charged also with the task of exorcising the evil spirits. So, the city was emphatically separated from the surrounding country, even though it had no actual walls. Even when the priests no longer ran the furrowed circle, there must have been in the minds of the city people the idea: The city has its limits; the limits are sacred; here I am safe.

That today's cities know neither walls nor the pomerium is their important difference from the cities of antiquity and the Middle Ages. But it is easily overlooked that there is something that they all have in common and that is much more essential: that the city dweller was and is a man of the milling crowds; what has changed is only the manner of the milling, crowding, and pushing.

This change occurred most dramatically with the invention of the railroad and the popularization of the automobile. Today, though living in pleasantly green surroundings, ten or even thirty miles from the city centre, one still may see oneself as a city dweller; for within an hour one can reach the city. In ancient Rome, a person living near the Porta Flaminia at the northern tip of the city needed about an hour to get to the Colosseum—a distance of not even two miles as the crow flies. This one hour did and does determine the extent of a city. According to whether pedestrians set the pace as they once did, or the railway as in most of today's large cities, or the automobile as in Los Angeles and in the city of tomorrow, the city limits will be close together or wide apart; but the crowding remains essentially the same, no matter what the means of transportation.

Somewhat changed, however, is the rôle which the city dweller wishes to play in the crowds. Many people who go to the cinema, the theatre, or to concerts prefer to sit in the middle of the hall—not merely, or even primarily, to enjoy a better view, but simply to feel that they are in the middle of things. Others prefer seats nearer to the side, perhaps even completely on the outside. But they would be quite disturbed if the middle should remain unoccupied; they want to be in the periphery, but they most definitely want to be with the crowd. If we apply this phenomenon to the cities, we find that the Romans belonged mainly to the first group, while we find both groups in modern cities.

For both types, Rome is a case in point—one could not find a more pertinent one. There is a hustling and a surging into the city, there is a piling of one floor on to another, there is a jacking-up of

rents even higher than the houses, and the most desirable and the narrowest and the most miserable spot is in the inner city, right in the middle, the nucleus of the empire and the centre of the world. The question, Why live at the very centre of the city? is to the Roman as futile as to a mountain climber the question, Why do the summits attract you so much, when nearer parts of the mountain are pleasanter?

"Living", apparently, was not at all what the Roman masses wanted; all they wanted was to *be there*; they derived gratification from the magnificence of their city, from its palaces, its triumphal arches, its fountains and innumerable statues; indeed, they enjoyed this magnificence even when it grew upon the ruins of their living quarters. The emperors ruthlessly tore down tenements to make room for their pompous buildings. Nero's palace replaced one fifth of a square mile of crowded buildings. The more splendidly Rome grew, the more deplorable became the misery. But people were content as long as they could feel that they were living in the heart of the world—and as long as they had their bread and circuses; on these they insisted. Even Caesar and Augustus did not dare to deprive the Roman proletariat of these benefits. If there were 200,000 Romans receiving this kind of state bounty, there were also 200,000 enthusiastic supporters of the imperial régime.

So, a large portion of the people existed largely at the state's expense. Finding work for them would have been an unrewarding project, for the wages that might be paid for physical labour were negligible in an economy based on slave labour. Only a little above the masses of the poor was a middle class consisting of artisans, shopkeepers, teachers, physicians, and artists. Then there was a small upper class, which lived a life of luxury such as the world has never seen since. These were the big landowners, the wholesale merchants, the moneylenders, and the land speculators.

Rich families usually owned a palace in Rome and two or three country houses in Tivoli or Tusculum, the luxurious garden cities near Rome, or, until its destruction in A.D. 79, in Pompeii near Naples. These country estates and city palaces were staffed with slaves, often several hundred of them. Sulla conducted his civil war with 40,000 of his own slaves. Many of the villas had dimensions which in our day would rate them the name "castle". It was no rarity that a villa consisted of two large halls and fifty rooms, and the bathrooms frequently were so large that one could have held one of today's one-family houses. Most of the villas had an Oriental inner courtyard, which sometimes was surrounded by a pillared gallery and often was landscaped into a flowering garden, especially those in Pompeii. In Augustus' time, some of the villas were provided with glass windowpanes, the first in the history of house

building. The new development made it feasible to build luxury houses in the provinces north of Rome, since the glass made large windows possible even in a country of cold winters.

An amusing though probably exaggerated ostentation appears in the *Satyricon of Petronius Arbiter*, the author of which is thought to be the same Petronius who was at one time a favourite in Nero's court. Part of this work tells a story about Trimalchio, an incredibly rich emancipated slave, who invites his friends and a number of poor students for a feast. His palace is covered all over with his portraits as well as with gold and marble statues. In a golden box he keeps the beard that he formerly wore. While the guests according to Roman custom dine in a reclining position, the host, clad in a purple mantle, is enthroned on a donkey of Corinthian bronze; its value is engraved on it for all to see. The head carver of the roast cuts and quarters the various dishes exactly in time with the beat of music that is being played by the house orchestra. Larded hares with artificial wings, to "make them resemble Pegasus", are among the more inconspicuous hors d'oeuvres. Petronius describes the serving a main dish as follows:

Then appeared a platter with a wild boar of tremendous size, which carried in its fangs two small baskets made of palm leaves. One basket contained black dates, the other white ones from Thebes. This hog had little piglets, which were baked of the finest flour, hanging from her teats. Instead of the first carver of meats whose normal duty the carving of the meat is, there now appeared a tall bearded fellow with long gaitors, who with a hunting knife forcefully cut the sow's belly in two. Instantaneously, the hall was filled with fluttering thrushes which had escaped from it. Fowlers were standing by with snares and, skilful hunters that they were, caught them above the table.

The wine jugs bear in large letters the inscription "One hundred years old"; the wine comes from one of the host's estates which, according to his own statement, he has never seen. After the meal, the house chronicler reads the day's entries concerning Trimalchio's estates and possessions; a statue, representing the host, is carried about so that every guest can kiss it, while Trimachio meanwhile shows on a scale the weight of the gold jewels, with which he has decked his wife.

Petronius' description was, of course, fiction; but we can be sure that it had more than a slight basis in actual customs of his time. Contemporary writers, as well as later historians, emphasize the lavish display and the luxurious self-indulgence of the Roman

nobles of that time. And most of the commentators find the condition anything but admirable. Juvenal, who himself lived in those days, complains:

> Here the splendour displayed far exceeds the resources,
> That's why, more often than is good, one takes of foreign cash.
> It is a common fault; in gilded misery
> We all live here.

Hand in hand with ostentation and prodigality go moral decay and perversion, prostitution, corruption, blackmail, and murder. Horace, who lived from 75 to 8 B.C., laments:

> Sinfully, our time has first
> Besmirched marriage and home and family;
> From this primary source a stream of evil
> Flowed over the land and the people of Rome.

> Eagerly she practises the Ionian dance,
> Hardly matured—the young girl; the art of coquetry
> She learns, and her mind from earliest childhood
> Is occupied with the intricacies of the love game.

> O cursed times—we decline from day to day!
> We—sons of fathers already degenerated if compared with
> Their forefathers—but we, still worse, are now
> Ready to beget still more depraved sons.

From generation to generation, depravity grew, more among the rich than among the poor, and worst of all at court. Messalina, the third wife of the emperor Claudius who reigned from A.D. 41 to 54, conducted herself in a way that shocked even the wealthy Romans. Juvenal reports:

> When she knew her spouse asleep, she of the frivolous mind
> Preferred the prostitute's cot to her princely bed. At night,
> Her head hidden under a hood, accompanied only by a single
> Woman servant, she stole away from her spouse, the highborn
>   prostitute.
> Covering her black hair with a blond wig, she entered
> Through the curtain drenched with spicy fragrances
> Into the chamber that was reserved for her . . .

In A.D. 54 when Nero was sixteen years old, he became emperor because his mother, Agrippina, had poisoned her third husband,

the emperor Claudius. One year later, Nero ordered the assassination of his half-brother Britannicus, five years later he had his mother murdered, and eight years later his wife, Octavia. He forced the philosopher Seneca and the poet Petronius to commit suicide. His second wife, Poppaea, died from the effects of a kick he had given her.

For a long time the people of the empire suffered no disadvantages from the palace poisonings and other intrigues. Except for the civil war of A.D. 69, in which four emperors fought each other for the crown, peace reigned in the Roman empire throughout the first
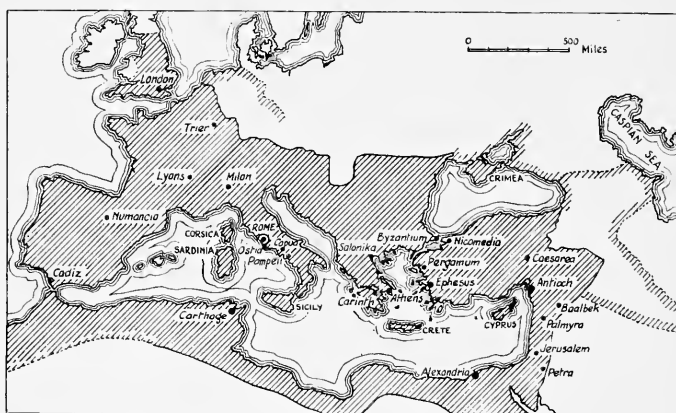
The Roman empire.

two centuries of the imperium. Perhaps never before and never since has there been such a long period of peace for such a large portion of mankind. The entire civilized world, with the exception of the large empires in southern Asia, belonged to the Romans. Rome had no adversaries. At the time of Augustus' reign, Europe had an estimated population of 30 million people, and 23 million of these were subjects of Rome; an additional 32 million of people lived in Rome's Asian and African provinces.

"Rome united the world in the name of a city," said the Greek Aelius Aristides in his *Eulogy for Rome.* "The world no more would think of separating itself from Rome than a ship's crew would think of separating from the helmsman."

Even though large cities existed outside of Rome, they were more in the nature of branch settlements of the metropolis, at the periphery of the imperium. To name just a few of these outposts: there

was, first of all, Alexandria; then the Syrian city Antioch; and, after its reconstruction, Carthage. Ephesus and Caesarea (which is now Kayseri), capital of the province Cappadocia in the heart of Asia Minor, each had about 200,000 inhabitants. Pergamum (today Bergama) and Nicomedia (now Izmit) in what is Turkey today, certainly were to be counted among the metropolitan cities; perhaps also Ostia, Rome's harbour at the mouth of the Tiber, as well as Lyons, the Gallic capital, and the rich Oriental caravan cities Petra and Palmyra; and the Roman colony of Baalbek near Damascus, famous for its fairy-tale temples and on whose construction 50,000 labourers are said to have worked for two hundred years. Trier, the largest Roman settlement north of the Alps, in the fourth century had about 80,000 inhabitants.

Beginning with Augustus, the Roman emperors took a hand in the affairs of the cities and strengthened the power of the government by raising numerous settlements to cities and by building new ones, especially in countries where a city never had existed before, as for instance in Germania. The well-to-do upper classes of the cities were the natural allies of the emperor who guaranteed peace and economic progress in an empire of an expanse never before attained. Except for the emperor's estates and those of the Roman aristocracy, all the land was the city's territory. The city governed and also collected taxes.

The villages, in which nobody was interested, had no schools. All the wealth, all the comfort, and all the culture was naturally concentrated in the cities. They had sewers, running water—not infrequently even in the upper floors—bath houses, sports arenas, schools, libraries, the circus, streets with stores and arcades, temples. The over-all picture of a Roman city was very much the same from London to Palmyra. But the citizens of Baalbek and the peasants living in the country surrounding the city had nothing whatsoever in common.

This rift became even deeper when, from the time of Caesar's reign on, at first the upper classes and then gradually all the inhabitants of the cities were granted Roman civic rights—women and slaves, of course, excepted. This meant eligibility for public offices and, what was perhaps even more important, considerable economic advantages. The peasant could acquire civic rights only by serving for twenty-five years in the Roman army. The extension of civic rights to all free men of the empire was not decreed until A.D. 212 by the emperor Caracalla; but then it hardly mattered any more.

Prior to the establishment of the imperium, even a war was fought about the privileges of citizenship; in bloody fighting that lasted from 90 to 88 B.C., the Roman allies on the Italian peninsula acquired Roman civic right by force. Citizenship was so desirable

147

because Roman citizens were the beneficiaries of the wealth from the provinces; it was for their benefit that the subject countries were exploited. But only the smallest portion of the citizens could make use of their right to vote, because the franchise could be exercised only through personal participation in the public meetings in the Forum Romanum. Legislation, election of officials, war and peace—these matters were decided by those who were present at the Forum. Absentees could not vote. Nothing illustrates more clearly the rôle of the city in antiquity, and especially of the Eternal City in its gigantic empire: Whoever wanted to have a voice in public affairs had to repair to the market place in Rome; being absent, even on government business, meant forfeiting the vote. To call Rome the capital of the imperium is incorrect—Rome was the imperium.

So, the laws were voted on not by the total Roman citizenry, but by the actual residents of the city of Rome, which meant, more and more, by the mob. Even when the emperors had abolished the formal public meetings, it still was in the name of the city's masses that the emperors ruled. Bread and circuses kept the people well disposed, the emperors found, but the circus needed innovation. Nero, aware of this, introduced as an exciting new spectacle the persecution of Christians. To the Romans, these Christians were strange creatures from a remote part of the empire, a small town called Jerusalem, and they had a tendency to be antagonistic.

Jerusalem was much older than Rome; it had existed since the second millennium B.C. Nebuchadnezzar had demolished it in 587 B.C. and had dragged its inhabitants off to Babylon into captivity. "Remember the Lord afar off, and let Jerusalem come into your mind," the Lord admonished the Jews in exile. And they promised, "If I do not remember thee, let my tongue cleave to the roof of my mouth; if I prefer not Jerusalem above my chief joy." Those who returned from Babylon, therefore, considered it their unquestionable duty to rebuild their holy city and also Solomon's Temple. In 168 B.C., Jerusalem was destroyed again, this time by the Seleucids; in 63 B.C., the city fell into the hands of the Romans. It had then 25,000 inhabitants and was towered over by mighty walls and castles. The great temple, of gold-encrusted marble, was 164 feet high and 164 feet wide.

It was probably in A.D. 30 that the Roman procurator Pilate, under pressure from the Jewish clergy, gave the order to crucify the carpenter's son Jesus of Nazareth. Thirty years later, the apostles Peter and Paul preached about the significance of this death on the cross to a rather puzzled congregation in the shimmering metropolis of Rome. Sometime between A.D. 64 and 67 the apostles died as martyrs in Nero's Rome. Today, the Basilica San Paolo indicates

the site of Paul's grave, and the Dome of St. Peter was built above Peter's grave.

In A.D. 64 a tremendous conflagration destroyed half the city of Rome. Rumours persisted that Nero himself had started the blaze. It may be dismissed as unlikely that Nero was the arsonist, but it is a fact that, contrary to his better knowledge, he laid the blame on the Christians. They were a most likely group to be persecuted— and, of course, found guilty—since by refusing homage to the state's gods they were offensive to pious Romans and could be punished publicly in such a manner as to delight the Roman mobs, who were beginning to tire of the customary circus fare.

In A.D. 70 the Romans destroyed Jerusalem, because the Jews had revolted against the mastery and the gods of Rome. The holy city of the Jews and the Christians was extinguished. The small Christian community had fled ahead of time.

Rome, where due to the missionary work of Peter and Paul many people had adopted the Christian faith, now became the new centre of Christendom, and it was not to its disadvantage. Christianity spread in the capital of the world and from there along the Roman state streets gradually over the whole imperium. Where previously a hundred languages had created a big confusion of tongues, Christian missionary work, thanks to Rome, could get along with two—Greek in the East, Latin in the West. The French religious scholar Ernest Renan has suggested that the destruction of Jerusalem expedited the rise of Christianity—first by effecting its dissociation from Judaism, and secondly, by shifting its centre of organisation to Rome. It is plausible. In an imperial city, the missionary can preach not only to members of all classes, but also to representatives of all peoples within their imperium, with the heightened possibility that the seeds of his teaching will be carried throughout the empire. And, of course, the chances of gaining the emperor's adherence means the chance of employing the apparatus of the state in the missionary work. For Christianity, these possibilities were realized.

Moreover, from about A.D. 200, Rome went into an inexorable decline, which made Christianity appear to more and more Romans as the only way out, as the last ray of hope. The Germanic hordes were hard upon the frontiers of the crumbling empire. Within the state, ruinous intrigue and cynical murder, and occasionally bloody battles, determined succession to the emperorship. From A.D. 235 to 285 there were twenty-six Roman emperors, of whom only one died a natural death.

The most likely candidates for leadership, whether of an army or the empire, were those who offered the most, in pay or in plunder, to the soldiers, who were in effect the power of the empire. Mostly

the sons of peasants and farmers, not citizens but subjects, the soldiers represented a part of the imperium that had always been comparatively disadvantaged. All the power was in the hands of the peasants in uniform; all the wealth in the hands of the city people in civilian clothes—who had lost the will as well as the power to defend the imperium.

Small wonder, then, that the soldiers resented and envied the cities—and even came to look upon them as fair game for pillage. In A.D. 197 Roman soldiers plundered and destroyed the Roman city of Lyons, after a battle between two claimants for the emperorship. The same fate befell the city of Autun, the second-largest city of Gaul. In 215, Roman soldiers staged a massacre in Alexandria. The fortress of Byzantium was plundered by its own garrison. The pillaging of Tyana in Asia Minor was at the last moment prevented by Emperor Aurelian, who restrained the soldiers with these significant words: "We lead wars in order to liberate these cities; if we plunder them, they will no longer have confidence in us. Therefore, we will rather look for spoils from the barbarians."

When the soldiers did not strip the cities bare, the imperial tax collectors did. They squeezed the people completely dry to finance the wars against the Germanic hordes breaking through from all directions and against the insubordinate sections of the empire— and most of all, to satisfy the ever-increasing demands of the soldiers. In the fourth century many citizens who were unable to satisfy the tax collectors were tortured and executed. The armies requisitioned money, food, and horses. The cities shifted their own immense burdens to the villages that were under their jurisdiction, and so increased the misery there. Escape from the country became more frequent; entire villages disintegrated, and agriculture fell back upon the most primitive methods.

In the midst of all this madness one solace beckoned—Christianity. The deeper one fell into poverty, the more heartening was the message that the rich would not get to heaven anyhow. Peace and security, which the emperor could no longer guarantee for this world, now could be hoped for in the hereafter. To the emperor, such doctrines seemed offensive and dangerous. When Diocletian, who reigned from 284 to 305, with an iron fist tried to revive the former glory of the imperium, he designated the complete extinction of Christianity as one of the essentials of his reforms. From 303 to 305 he carried out the greatest (and last) persecution of the Christians. Tens of thousands of the faithful were summarily executed or tortured to death; all churches were destroyed, the whole empire was steeped in blood. In 305 Diocletian resigned. Only six years later, Constantine the Great issued the Tolerance Edict, and in 325 he made Christianity the state religion.

The city was crumbling, and the empire was fading; but in Rome, building went on—it was then that the Romans, with their enthusiasm for water and baths and every conceivable luxury on the side, built their most palatial public baths. The *thermae* of Diocletian, with a length of 1,214 feet and an area of approximately 32 acres, excelled even those that Caracalla had built in the previous century; it also was one-third larger than the first walled-in little town of Rome on the Palatine. Wealthy Romans spent a good part of the day at the *thermae*, which were at once public bath and social meeting place, gleaming of marble and mosaics, with provisions for hot and cold baths, a large swimming pool, massage rooms, gymnasiums, stores, restaurants, and a library, and they were equipped with physicians, sausage vendors, dealers, informers, and gossips.

Many of the noble families of Rome had become extinct; the earliest palaces had begun to totter. Now, in A.D. 330, the city's fate was sealed when Byzantium was declared the new capital of the imperium. The mob took over the streets—which never had been quite safe; even under Augustus, assault and murder there were commonplace—and the police were unable to cope with the situation. Rome began to devour itself. From the abandoned palaces the people carried away anything they could make use of, and in 391 Emperor Theodosius had to state expressly that private citizens were not allowed to destroy public buildings.

Rome's last hour struck on August 24, A.D. 410. The Visigoths, under Alaric, conquered Rome and plundered it for three days, before they moved on to southern Italy. The Germanic people in the Eternal City! The shock reverberated throughout the world of antiquity. Then in 455, the Vandals, under Gaiseric (or Genseric), pillaged the city.

This second plundering of Rome inspired the French Bishop Gregoire in 1794 to coin the word "vandalism". It was an arbitrary and rather unfortunate expression; the Vandals had acted exactly as nomadic people always do, if they have the power in their hands—the Aryans in India, the Jews in Canaan, the Germanic tribes in Rome (and the Gauls eight hundred years before them), the Asians from Attila to Tamerlane in hundreds of Asiatic and European cities. St. Patrick is said to have remarked about the Visigoths, "They mocked those who crowded into the cities; they were of the opinion that the city people were not living the life of human beings, but of birds sitting high up in their nests."

In 476 the Germanic king Odoacer dethroned the last West Roman emperor and also officially put an end to the city-state Rome. Grass was growing in the streets, cows were grazing in the Forum. The remaining inhabitants—at times there were not more than a thousand—became accustomed to the thundering noise of

collapsing palaces, in the same way as the Alpine people are used to hearing the rumbling of the avalanches. In the Middle Ages the ancient buildings for hundreds of years served as stone quarries; debris filled up the valleys between the seven hills.

But Rome was not lost. After it became the world centre of Christianity the popes left no doubt about their continuing the traditions of the world empire. From the fifth century on they bear the title Pontifex Maximus, the same which the Roman emperor bore in his capacity as high priest of the state religion; the concept of dioceses, by means of which Emperor Diocletian subdivided the provinces in order to make the government more efficient, was adopted for the territorial division of the Catholic Church. The concepts of "Roman" and "Holy" remained joined, as they did in the officially accepted name of the German realm until 1806—the Holy Roman Empire of the Germanic Nation.

In the fourteenth century Rome acquired a university and almost reached a population of 20,000. About 1500, there were already 50,000 inhabitants, more than in any German city at that time, though fewer by far than were living in Venice and Naples. But Rome was well on its way to becoming once more a world city, thanks to the monumental buildings erected during the fifteenth and sixteenth centuries, and thanks to the artists and scholars who accepted invitations to the papal court.

In 1743 Casanova, then eighteen years old, volunteered this opinion: "I knew that Rome was the only city where anybody coming from nowhere could become somebody." In 1786 Goethe stated effusively: "Now I am counting an additional birthday, truly a regeneration from the day when I entered Rome." Three months later he nevertheless wrote in Naples: "One does not like to reminisce here about Rome. Compared to the spaciousness here, the capital of the world in the Tiber valley seems to be an old, badly placed monastery."

We have not far to go from this opinion to the touching lines which the subsequent Prussian Chief of General Staff Moltke wrote in 1845: "Our first impression of Rome was a sad one. It began to rain on the day of our arrival. The filth in the narrow streets is indescribable, and the gregarious, beggarly people made Marie in particular almost choke. Many a longing thought quietly went back to Berlin."

In the eighteenth century Rome was again a metropolis, and in 1931 it had a million people. It is now the largest city on the Mediterranean and, with its more than two million inhabitants, larger than ancient Rome, even if we use the most generous estimates for comparison. The difference is that in population it now takes thirty-fourth place among the cosmopolitan cities.

In those days, two thousand years ago, Rome had no rival on earth, and in point of historic significance, no city has ever been able to come close to ancient Rome. The "blood-soaked soil of Roman magnificence," as Herder calls it, gave birth to the immense city structure, the language, and the culture by which Europe was shaped. Rome united ancient and Christian heritages and projected them as one into the future.

The most highly developed city culture in history, however, ended in a disaster so horrible, so inexorable, and leaving such a chaos in its wake, that it defies comparison. Under the onslaught of the Germanic nomads an empire fell apart which had already been driven to the brink of the abyss by the diminishing of the population, by escape from the country and a senseless prodigality, by the most cruel and arbitrary kind of government, and by the deterioration of any and all law and justice. If a metropolis for centuries either exploits the country or neglects it completely, then city and country break up together. In the long run, the mayor of Rome was overtaxed if he was expected to rule the world, even though he bore the title of emperor.
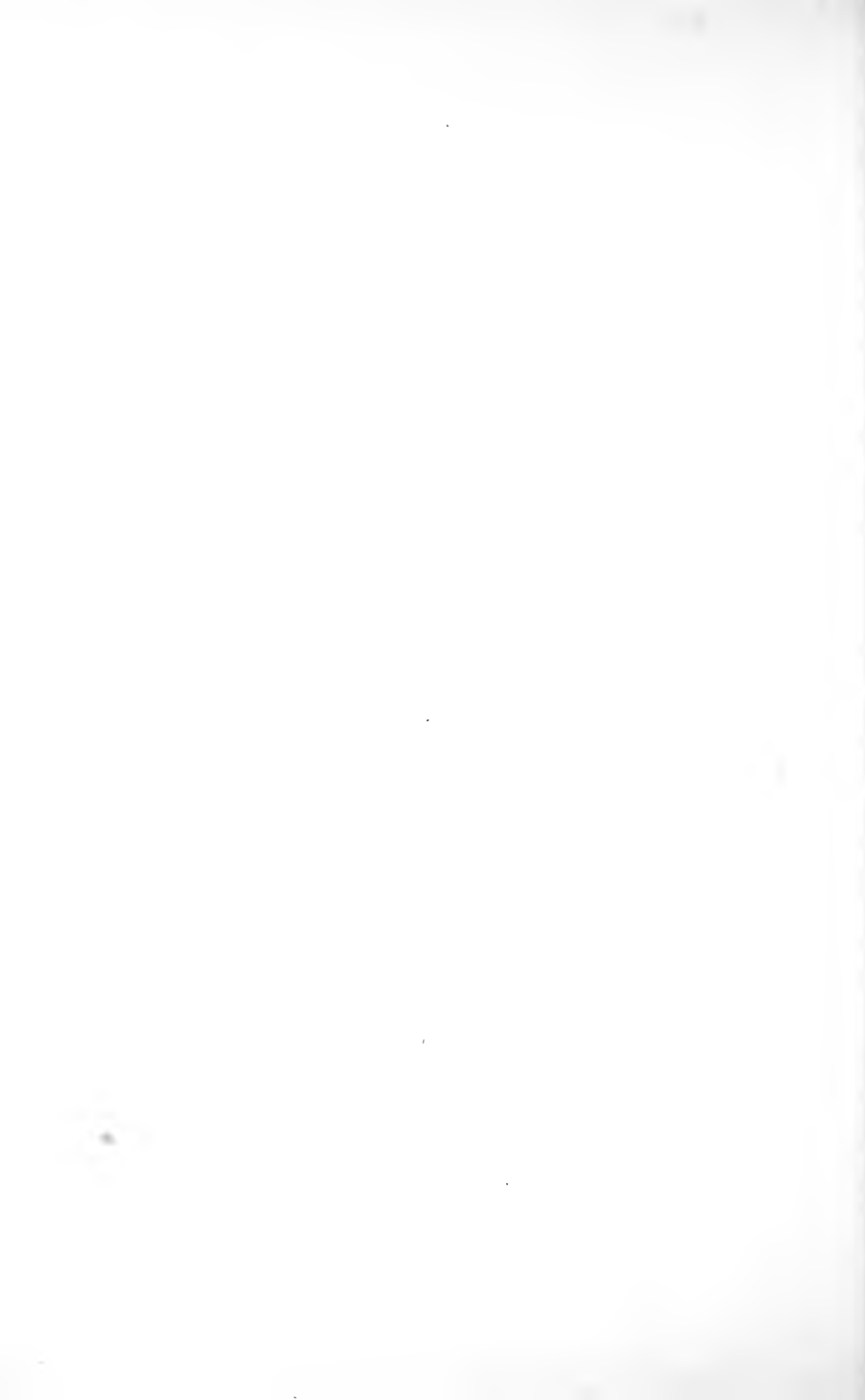
PART FOUR

THE CITY IN THE
MIDDLE AGES

THE BULWARK ON THE BOSPORUS

WITH THE end of antiquity, the greatest period of the cities was over; the period of the largest cities, on the other hand, was just beginning.

In point of population, the ancient cosmopolitan cities were surpassed during the Middle Ages only in the Far East; in point of splendour, right up to the present only in Asia. No city ever again has played such a predominant rôle as Rome or Babylon.

The decline of Rome brought 5,500 years of city history to an end. Since then, only 1,500 years have passed. The era of ancient world cities—that is, the period from Hammurabi's Babylon to the victory of the Germanic tribes—lasted 2,000 years; of this period, 900 years, from 600 B.C. to A.D. 300, saw the greatest flowering of these cities. The industrial city culture of our days has been in existence for only 150 years. Such figures should put us on guard against losing our perspective and seeing the distant past as shorter than it actually was.

In regard to city history, the Middle Ages in Europe were a protracted and mostly vain attempt to regain the prominence which the cities of antiquity had achieved. To be sure, this attempt was attractive enough as it was, and brought forth a number of charming results from Lübeck in northern Germany to Florence in Italy.

With the break-up of the Roman imperium, the centre of gravity of city culture moved from the Mediterranean area to Asia, especially to China and India, and into the Islamic world, while weeds grew among the ruins of European cities. In the early Middle Ages, the only world city of Europe was situated on the very edge of the continent, just half a mile away from Asia on the other side of the Bosporus. The city, of course, was Constantinople, earlier named Byzantium, and today Istanbul. As Byzantium it had its beginning in the seventh century B.C. as a Greek colony and became Roman in 201 B.C. It was a strong fortress, one that could control navigation from the Mediterranean into the Black Sea and passage to Asia at the narrowest point of the strait. Its location was obviously ideal not only for a fortress but also for a commercial centre—and it was also exceedingly beautiful, on a hilly peninsula created by the deep-

blue waters of the Sea of Marmara, the Bosporus, and the narrow bay of the Golden Horn.

When Constantine the Great undertook to carry out a plan, originally considered by Augustus, to give the imperium an eastern capital, because the eastern section far exceeded the western in commercial power and in population, Troy, Byzantium, and Alexandria seemed to be the most suitable—Troy because it was, according to legend, the mother city of Rome; Alexandria because it was the second cosmopolitan city of the imperium. But the beauty and strategic location of Byzantium made it the choice. In 330, it was proclaimed capital of the imperium under its new name Constantinople, and in A.D. 395, when the imperium was divided into two parts, it became the residential city of the East Roman, or Byzantine, empire. When the imperium's western section foundered in 476, Constantinople asserted its claim to the entire world empire which once had been ruled by Rome.

The city aspired to be not the new Rome, but rather the old Rome reconstituted. It was not permissible that Rome should become extinct. Rome simply could not perish. And so, it lived on at the Bosporus. This was the basic idea of the state, and the idea prevailed among the people and in the cities. The emperor of Byzantium had the title Imperator Romanorum. At the end of the sixth century Greek replaced Latin as the official language, but even as late as the nineteenth century, the Greek language was called the "Roman" in popular speech at Istanbul. Besides the Holy Roman Empire of the Germanic Nation there was now, for all practical purposes, a Holy Roman Empire of the Greek Nation. A state with any self-esteem had to trace its origin and its blessings to Rome.

The new metropolis was meant even to *look* like Rome. Constantine was determined to change the picturesque fortress within a few years into a splendid world city, and he had the means to do so. Palaces of marble and bronze, surrounded by palm and plane trees, triumphal arches, peristyles, statues and fountains, as well as libraries and schools, grew in prodigal splendour and abundance. Whatever could still be found of Greek works of art was brought to the city from Athens and Ephesus, from Delphi, Rhodes and Crete. There were also many large squares and wide streets with arcades. However, the shimmering ocean under a southern sky, Syrian and Egyptian influences which were noticeable in the architectural picture, all the colours and the insouciance of the Orient turned Byzantium into a city quite different from Rome.

But the tenements were built along streets just as narrow as those on the Tiber. Together with the splendour of the old capital, the new city also adopted its misery and its mob. In good antique fashion, the emperor's interest in his city was exhausted with the

building of palaces, large squares and aqueducts. He was not concerned with the conditions under which people were living, though it was important to him that he be surrounded by a great many people. Constantine, therefore, allocated a considerable premium for the building of tenements, and almost as many people poured into Constantinople as once had come to Rome (about 700,000 inhabitants in A.D. 400). The quality of the buildings was no great concern of the emperor, nor, apparently, of the tenants either. Consequently, these dwellings were poorly built.

Tenement houses in Constantinople were permitted to be 100 feet high, which means they could have approximately twelve floors —that is, as long as the streets they were on were at least thirteen feet wide. Thirteen feet wide, indeed! Such a building code certainly favoured the development of gloomy ravines and dungeons which even surpassed the misery of Rome. The sky, a faraway blue band; the sun, unfamiliar—that was how tens of thousands of children grew up in the gigantic new city at the Golden Horn.

Moreover, the owners of the tenements could collect the same exorbitant rents as the Roman landlords had done, because officials, tradespeople, and proletariat crowded into the city. The rural population was attracted by so much splendour, and, of course, no less by the prospect of not having to work for their livelihood, because, naturally, the proletariat received its grain free, as once in Rome, and wine with it to boot; and unlike the country people, they did not have to pay taxes.

In the city on the Tiber, grain was given away only under pressure of unfavourable circumstances or due to the emperor's understandable wish to pacify the crowds. On the Bosporus, the concepts of Christianity, the new state religion, made it also a religious obligation to give to the poor, and 100,000 of the poor turned this situation into a lucrative business. If, for a change, the east Roman empire had peace along its frontiers, an uprising of the army of idlers constantly loitering in the streets of Byzantium was not long in coming.

Already during the fourth century, the new world city was threatened, first by the Goths, then by the Huns—Germanic and Mongolian nomads who lined their routes with corpses. The Huns plundered and devastated dozens of cities; decades later, only ruins and the bones of the slain could be found. Constantinople, however, resisted.

For a quite insignificant reason, in 532 the anger of the people of Constantinople against the prefect of police and against arbitrary dispensation of justice flared up into open rebellion against Emperor Justinian. The mob seized upon the government and reduced half of the city, including the large churches, to ashes. It

almost seemed as if in a Europe that was tired of cities the last one was to cause its own demise. But the emperor regained command of the situation when he took the insurgents by surprise at the gigantic circus of Constantinople, where his troops slaughtered 35,000 people. Justinian's wife, the one-time circus girl and prostitute Theodora, had restrained him from abdicating and fleeing the country.

Constantinople did not perish. It was just at the beginning of its development. After the revolution the emperor erected new monumental buildings upon the ruins, among them the Hagia Sophia, which was built during the years 532 to 537—for a long time the largest church in Christendom; with its tremendous cupola it became the prototype of all Islamic mosques. Justinian built hospitals, orphanages, and poorhouses in such numbers as had never before existed in any city. And the revolt gave him a good enough reason to reinforce the police to such an extent that every city dweller could be kept under control.

In the attempt to reinstate the old Roman empire, Justinian drove the Goths out of Italy and the Vandals out of Africa, and he even conquered parts of Spain. Most of what he accomplished was undone and lost again after his death, but the empire still remained a great power.

In 557 thousands of people met their death in Constantinople through a panic caused by an earthquake. One year later, tens of thousands died from the plague. The foolish and explosive reactions of the well-fed Constantinople mob had no precedent in history, nor had the adversities which the people suffered. Conditions were worse than they had been in Rome—where, after all, they had had several centuries in which to develop, while in Constantinople all the wretchedness of an ancient city colossus was compressed into a few decades. Only a small middle class and the predominantly Greek upper class, composed of church dignitaries, state officials and vast landowners were swimming upon the turbulent ocean of the rootless masses.

Nevertheless, Constantinople had one considerable advantage over Rome: It did not merely live a parasitic life, but thanks to its exceptional location as much as to the traditional skill of the Greek artisans, it became, more or less as Alexandria's successor, the greatest commercial centre on earth. This new Rome was the main port for luxury goods from the Orient—for silk, spices, and precious stones from China, India, and Arabia—and it became the practically unrivalled world centre of arts and crafts. The Byzantine gold coin, the solidus (also called byzantine or bezant), had much the same standing in international exchange as the English pound sterling before the First World War and the present-day United

States dollar. And this commercial strength enabled Constantinople to weather the many storms that beset the city. After the internal disorders of the sixth century, the city succeeded in maintaining its position as a bulwark, causing shattering defeats to the numerous attacks of Persians, Arabs, Bulgarians, Normans, and Turks over a period of eight hundred years. One might safely say that Constantinople was the most successful and grandiose fortress in recorded history.

The Persians started the long series of sieges in A.D. 626. From 667 to 717 the hosts of the new Arabic world empire were at the gates of the metropolis several times. In 711 the Arabs crossed over into Spain near Gibraltar; in 732 they were established in central France until their defeat in the Battle of Tours, or Poitiers. In 827 they penetrated into Sicily. If the shortest route into Europe had not been barred by the fortress Constantinople, the Arabs could have taken Europe between their pincers.

In the eleventh century the Byzantine empire once more extended from southern Italy to the Caucasus. But in 1204 the metropolis was conquered and plundered—not by Arabs, but by Christians, the participants in the Fourth Crusade. The city of Venice, which aspired to world hegemony and sought to break the commercial monopoly of Constantinople, had persuaded the Crusaders to undertake this mad venture; this had been all the easier because the Byzantine Christians resisted bowing to the Roman Church. Several times during the thirteenth and fourteenth centuries the Eastern Church offered its submission to the Church in Rome if West Roman Christendom would contribute to the defence of Constantinople against the Turks. That assistance was not extended, and the separation of the two Churches has continued to the present day.

From the eleventh century on, the Turks made inroads on Byzantine power in Asia Minor. In 1354 they crossed the Dardanelles and gained a foothold in Europe; in 1361 they reached Bulgaria; and in 1389 they were in Serbia. Constantinople, surrounded, still held its ground, but a steady stream of refugees, including some sixty thousand Italian merchants who did business there, flowed out of the city. Not until about a hundred years after their infiltration of Europe did the Turks finally attack Europe's thousand-year-old bulwark against Asia. After a long siege and bitter fighting in which the new miracle weapon, the cannon, was for the first time employed on a large scale, the last Byzantine emperor, Constantine XI, fell in battle on the walls of his city. On May 29, 1453, the Turks entered the metropolis, which by now was practically deserted. The east Roman empire had ceased to exist. Sultan Mohammed II entered the Hagia Sophia on horseback.

Christendom cried out in agony. Venice concluded a commercial treaty with the Turks. In 1529 the Turks stood at the gates of Vienna.

Byzantium now became the radiant capital of the Ottoman empire. From the beginning of the sixteenth until well into the seventeenth century, when London moved to the fore, the city was again Europe's largest. In 1900 it was one of the world's few cities with a million inhabitants. Many people consider it one of the most beautiful on earth; poets from Byron to Hamsun have sung its praise.

And the Hagia Sophia, which Justinian built, is still standing. In Istanbul one breathes the air of the millenniums. Rome was a world city for a mere six hundred years. Christian Byzantium existed for eleven hundred years—the only European city whose longevity can measure up to the Babylonian and Egyptian cities. Under the protection of this tremendous fortress against Mohammedan and Mongolian invasions, the modern era began in the West.

In Byzantium the ancient Greek texts were collected. Byzantine manuscripts kept in Italian libraries gave the Renaissance an essential impetus. Byzantium was instrumental in Russia's embracing the Christian faith and thus becoming a part of Europe. By blending and disseminating Greek, Roman, and Oriental culture, Byzantium permeated all areas of the arts and sciences in the Occident.

Our textbooks are brimful with historical facts about Athens and Rome, but the Byzantine heritage is often glossed over as briefly as is the Babylonian. Byzantium is not very popular. Perhaps mentioning it suggests "Byzantinism", which refers to the cultlike adoration of the emperor and the servile, strictly controlled submissiveness of his attendants, but this expression is as accidental as the word "vandalism". Most of the ceremony of an imperial court seems almost grotesque to people living in a republic, and in Byzantium things did not happen in a more peculiar way than they did at the courts of the great Kublai Khan in China, Philip II of Spain, or Louis XIV, the latter in a France that was already on the way to the age of enlightenment.

Perhaps the division of the Church is partly to blame if Catholics and Protestants alike show some reservations when the word Byzantium is mentioned. They resemble somewhat those Crusaders who gladly availed themselves of the Byzantine wealth and would not consider how much they were hurting Europe.

A THOUSAND AND ONE CITIES

THE CITY of Hangchow—what do we know about it? Hardly more than that it is located in China, even though it was once the largest and richest city in the world. But the fame of a city passes, especially when it is so far away. And it was in far-away Asia that the greatest builders and destroyers of cities in the Middle Ages had their field of activity. Among the few prominent European cities at the end of the first millennium were Córdoba and Seville in Spain, and Palermo in Sicily, and all three were Arabic.

From the eighth century on, Islam, the new world religion, had been expanding till it reached from Spain to India. A garland of great cities surrounded the Islamic world: Cairo in Egypt, Damascus in Syria, Shiraz, Tabriz, and Isfahan in Persia, Samarkand and Bukhara in Turkistan, Kanauj and Delhi in India.

Mohammed's successors bore the title of Caliph, and to their people they were both pope and emperor. At first, the Caliph's residence was in Medina, the Holy City of Arabia, and Mohammed's final resting place; then in Damascus, which had in the past been subjected to Assyrian, Babylonian, and Roman masters; and finally in Baghdad, the cosmopolitan city of the Islamic world. Caliph al-Mansur developed the little town of Baghdad into a military encampment and glorious metropolis. It was situated on the bank of the river Tigris, only about fifty miles north of ancient Babylon. After Kish, Babylon, and Seleucia and Ctesiphon, Baghdad was the fifth and so far last great city centre in the heart of the two-river country, where so many historical events had taken place. The caliphs made Baghdad not only the centre of the new world religion, but also a citadel of the sciences second to none (except possibly, Byzantium), and one of the largest trading centres on earth. The river Tigris is navigable up to Baghdad, and the city was situated at the crossroads of the caravan routes from Persia, Asia Minor, Egypt, and the Arabian peninsula. Caliph Harun-al-Rashid, who reigned from 786 to 809, built a bridge across the Tigris, extended the city area to the east bank of the river, and thus made Baghdad four times the size of Rome. He invited artists and scientists to his court and had communication with Charlemagne.

Harun's sense of justice is spoken of in glowing terms in *The*

Arabian Nights, and we are repeatedly told how he, in disguise and accompanied by his vizier, mixed with the crowds in order to learn of the worries and troubles of the simple people. Besides telling us wondrous stories, the tales convey a colourful picture of everyday life in the Islamic world. They tell of the poverty-stricken, but resigned existence of the porters, cobblers, and ropemakers, whose fondest dream is of being able to afford once a week "noodles with honey"; they tell about flowers on the window sill and large gardens *inside* the houses of the rich.

The customary house of mud bricks with a flat roof and inside court probably looked pretty much the same as its counterpart in Kish four thousand years earlier; and, if it was the house of a wealthy man, it was so roomy that the inner court had expanded into a beautiful garden, similar to those in the villas of Pompeii. But in Baghdad, more stress was placed on the jutting roofs and the shade-giving trees, because during the hottest month the mean temperature was above 86 degrees Fahrenheit.

In the tales, the highest praise for a girl was that she was as "beautiful as the full moon", and we learn of the luxuries of the rich from Sinbad the Sailor as he, laden with treasures, returns to Baghdad from his first dangerous journey: "Now I acquired eunuchs and servants and mamelukes, odalisques and black slaves, until I had assembled a large household." Mamelukes might be interpreted as armed bodyguards, and odalisques were fair-skinned harem slaves mostly from the Caucasian Mountains, in contrast to the dark-skinned slave girls whom Sinbad did not scorn either. It seems that the symbol of wealth was a large harem and a great number of servants.

Caliph Mamun, the son of Harun-al-Rashid, founded the "House of Wisdom", which, among other things, was entrusted with the translation of scientific books from Greek into Arabic. The new dynasty of the Seljuks during the eleventh century created the "High School of Baghdad", which became the centre of Islamic arts and sciences.

Some reports have it that Baghdad had no fewer than 100,000 mosques, chapels, and prayer houses during its two peak periods in the ninth and eleventh centuries, and 60,000 public baths, and 12,000 caravanserais. Even if we credit two-thirds of this report to the Oriental delight in telling tall tales, Baghdad must have been a fantastically colourful city. According to Arab accounts, it had two million inhabitants; European estimates more modestly speak of from a half to one million—a figure still sufficiently high to put the residence of the caliphs, which was taking the place of the slowly waning city of Constantinople, ahead of all the other cities for the period of a whole century.

We are unable to reconstruct a picture of the cosmopolitan city, because Hulagu, a grandson of Genghis Khan, attacked Baghdad in 1258 and destroyed it. The mosques went up in smoke; the Mongolian nomads spent six days plundering and killing; the last caliph was trampled to death by horses. A scream of horror was heard throughout the Mohammedan world.

But the mud brick houses were so quickly rebuilt and trade flourished so soon again, that the Venetian world traveller Marco Polo, who visited Baghdad thirteen years after its destruction, could report:

> They produce gold-encrusted silks in Baghdad, and damask, and velvet which is decorated with animal figures. Almost all the pearls which are brought to Europe from India are mounted here in this city, where one can study Mohammedan law, as well as magic, physics, astronomy and physiognomy. Baghdad is the most elegant and largest city to be found in this part of the world.

The Mongols attacked Baghdad for the second time in 1401, this time under Tamerlane. His orders were that mosques, schools, and hospitals were to be excepted from destruction, and that the lives of artists and scholars were to be spared. His hordes built 120 pyramids out of 90,000 severed human heads.

But Baghdad was populated again and grew once more into a great commercial centre. Silk, spices, and jewels, the Asian treasures most wanted in Europe, passed through Baghdad on their way to Constantinople or Alexandria. With these two slowly dwindling world harbours, and with Venice, Lisbon, and Antwerp, Baghdad as late as the fifteenth century still ranked among the great trade capitals. The discovery of the sea route to India in 1498, however, changed its fortune, as it did that of so many other cities. In 1650 Baghdad had only 15,000 inhabitants; in our day, there are more than one million.

For half a century, from 836 to 883, Baghdad, at the height of its magnificence, was not the residence of the caliphs. They built a new capital in the desert, on the east bank of the Tigris, 69 miles north of Baghdad. In its dimensions it probably was the most absurd city ever built—far more so than Akhet-Aten on the Nile. Its name was Samarra.

Probably in an endeavour to create for the new world power, Islam, an earthly home that would be awe-inspiring to the faithful and the infidels alike, Caliph al-Mutasim set out for the vacant desert, where no previously laid ground plan of a former city would curb the daring of his visions. He erected a chain of gigantic buildings extending for twenty miles along the Tigris—mosques,

palaces, and treasury buildings, besides armouries for 70,000 men. The largest mosque had room for 100,000 of the faithful and measured 855 by 590 feet. (For comparison: St. Peter's in Rome is 610 feet long, and from 230 to 460 feet wide.) A palace which Caliph al-Mutawakkih presented to his favourite son covered an area six-tenths of a square mile—more than fifty times the size of the Escorial, or about as large as the entire principality of Monaco.

This fantastic creation of a city apparently was never even approximately filled with houses and people, and it probably was not intended to be. It was rather the expression of an unbridled determination to glorify Allah and his caliph, and to create in relation to cities the equivalent of the Egyptian pyramids in relation to the tombs. In 883 the caliphs abandoned this artificial giant and returned to Baghdad. Decay soon started its ugly work in Samarra and is still going on. At present 15,000 people are living among tremendous ruins which take the Baghdad express half an hour to pass.

India's population at the beginning of the Christian era has been estimated as 100 million—more than three times that of Europe at that time. There had been giant cities in India in ancient times; among them, as we have seen, were Pataliputra and Cuttack. Later, there had been Kanauj, which was known to the Egyptian astronomer and geographer Ptolemy in the second century. In the late Middle Ages the world city of India, the metropolis of the wonderland from which spices and jewels came, was Delhi, once one of the most magnificent cities on earth and for that reason more thoroughly plundered than other great cities; Tamerlane, in 1398, was one of the plunderers.

Delhi's greatest era was during the sixteenth and seventeenth centuries as the capital of the Islamic empire of the Moguls. Shah Jehan, Great Mogul from 1627 to 1658, built the Great Mosque, one of the largest and most beautiful on earth. Its structure of red sandstone supports three cupolas of white marble which is decorated by the insertion of vertical bands of black marble. The Fort of the Great Moguls is just as beautiful: a city within the city—a marvellous park with palaces and mosques, and surrounded by a wall fifty-two feet high. The audience hall, the ceiling of which is supported by sixty red pillars, once contained the Peacock Throne of Shah Jehan, which owes its name to the two life-size peacocks that adorn it. The peacocks are completely covered with diamonds, emeralds, and rubies. Nadir Shah carried it off to Persia as his most precious booty when he plundered Delhi in 1739, and it can still be seen in Teheran. The government section, New Delhi, which

the English built in 1912, did not add as much glamour to the city as Nadir Shah had carried away. It seems that the towns of India profited less from the country's wealth than did Teheran, Lisbon, and London.

The first city to surpass Rome in size developed in a part of the earth which to us seems untamed and remote, in Indochina. Its name was Angkor, which means "The City", and it was founded about 900 as the metropolis of the Khmer empire in the territory we know as Cambodia. Half of its area of almost eight square miles (the same size as Carthage) was covered by a tremendous palace-and-temple city inhabited by Buddhist monks, slaves, and a host of temple dancers. The population of Angkor supposedly was more than one and one half million.
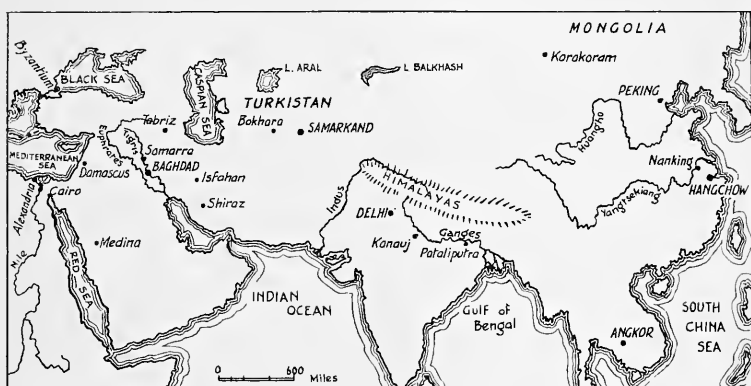
The Orient in the time of Marco Polo.

In 1177 the great city was destroyed by its neighbours, the Chams, and about 1450, after additional destructions, was finally abandoned. Dense forests soon covered its ruins. But as a silent testimony to its glory, Angkor has left behind in the jungle one of the most monumental structures on earth: the temple Angkor Wat.

Over a period of seven hundred years China had the largest cities on earth. Even though we cherish places like Venice and Florence, Cologne and Brussels, we have to realize that these famous cities of the late Middle Ages would have appeared small to the inhabitants of Hangchow or Peiping—more like little jewel cases than world cities. Yet, it was a Venetian, Marco Polo, who wrote rhapsodic words about Hangchow. He described the city, which in his time

167

was called Lin-gan-fu or King-se, and which he names Kinsai, as noble and full of splendour, and he thinks that it deserved its name, "City of Heaven", more than any other city in the world, "because of its size and beauty, and because one can find so much entertainment, joy, and delight there, that the inhabitants truly may well believe that they are living in Paradise."

Hangchow is situated on the southernmost edge of the Yangtze delta, southwest of Shanghai—a picturesque location between an ocean bay and the famous Si Hu ("Western Lake"). From 1127 to 1278, Hangchow was the seat of the so-called Southern Sung dynasty and thus the capital of Central and South China; the north of the country was in the hands of the Mongols. Under the Sung kings, the residence developed into a tremendously large and wealthy city and became the centre of ancient Chinese art and culture. In 1278 the Mongols overthrew the dynasty and incorporated Hangchow into the empire which they ruled from Peiping. Shortly thereafter, Marco Polo was in Hangchow, which still had a Mongolian occupation of 30,000 men, and the Venetian observed the inhabitants "do not like the sight of the military".

According to Marco Polo's description, Hangchow was traversed by a straight, one-hundred-foot wide main avenue, which at ten evenly spaced points widened out into a quadratic market place. These squares were surrounded by stores and high houses occupied mostly by the imperial officials and the highly respected physicians and astrologers. Horse-drawn carriages, seating six and furnished with silken curtains and cushions, rolled along the wide, paved streets. A network of canals for the water supply and navigation ran through the city.

Many houses resembled palaces and were surrounded by parks. "Their houses are handsomely built and richly ornate with wood carvings," reports Marco Polo. The people of Hangchow "derive such pleasure from ornaments, paintings, and fantastic buildings, that they spend tremendous sums for such things". Since most of the houses were built of wood, there was a stone tower in every street, where the people could store their belongings for safekeeping should a fire break out in the neighbourhood. Day and night, imperial fire guards of five men each, were posted on the larger bridges, ready to strike a big gong in case of danger.

Marco Polo was enchanted with the women: "They are very beautiful and are brought up in gentle and affectionate ways. The splendour of their silken dresses and jewels is hard to imagine." The women were treated with great respect. The inhabitants were gay, hospitable, and honourable.

A favourite place for wedding celebrations was one of the many pavilions on the two islands in Lake Si. The Venetian, who

certainly was used to gondolas, was completely carried away:

> There are a great many luxurious boats or gondolas on the lake, capable of carrying ten, fifteen, or twenty persons . . . People who enjoy this kind of pastime hire one of these boats, which are always kept in best repair . . . The cabins have a flat roof from where the boatmen propel the boat with long poles, which they thrust down to the bottom of the lake . . . The cabins are decorated in various colours and have paintings on the walls; and paintings also adorn all the various parts of the boats. There are windows on both sides that can be opened to give the party sitting at table an opportunity to look in all directions and to take delight in the variety and beauty of the scenery. The enjoyment offered on the water truly excels any enjoyment one may find on land, for—since the lake on one side extends along the entire city—one has a view of its full size and beauty, its palaces, temples, monasteries, and gardens with enormous trees, while one can at the same time enjoy watching other boats which, similarly decorated and constantly gliding by, also carry groups of people seeking their pleasure.

Marco Polo makes rather extravagant statements concerning Hangchow's size; according to him, the city had a circumference of 100 miles; on account of the numerous canals, there were 12,000 bridges (Venice has 400); and the inhabitants ate more than 10,000 pounds of pepper daily. A survey of fireplaces which took place during Marco Polo's sojourn, probably for the purpose of counting the households or families, supposedly arrived at the figure 1.6 million. This would mean at least seven million people! One may assume this to be a slight exaggeration on the part of the traveller dazzled by the marvels of China. The number of fireplaces may very well have included all those of the entire province of which Hangchow was the capital. However this may be, for the year 1850 the city's population is estimated at two million, which would indicate that Hangchow was, after Peiping and London—the third-largest city on earth. During the twelfth and thirteenth centuries, it probably was the largest.

There are two reasons why Hangchow is no longer ranked among the many Chinese cities with more than a million inhabitants: in 1842 the nearby city of Shanghai opened its harbour to foreign trade, which eventually made it China's largest city; secondly, in 1861, during the Taiping Rebellions, Hangchow was almost completely destroyed. The third great ancient Chinese city, Nanking, was another victim of this war, and with it one of the most magnificent structures the world has ever seen, the 260-foot-high porce-
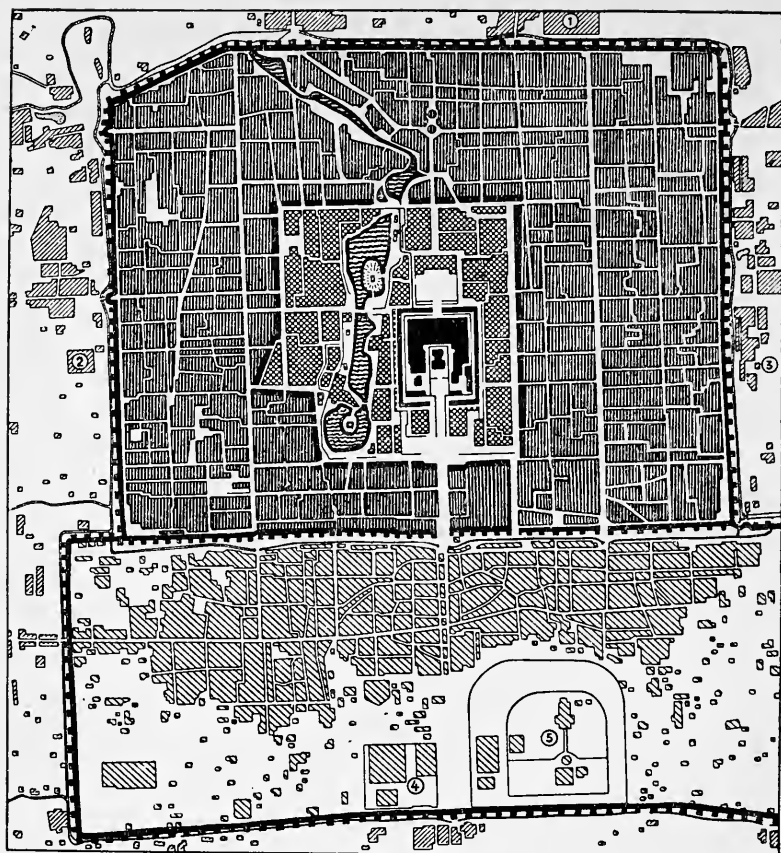
Forbidden City ▬▬ Emperor's City ▨▨▨ Tartar's or Centre City ▥▥▥ Chinese or Outer City

1. Temple of Earth   2. Altar of the Moon   3. Altar of the Sun   4. Temple of Agriculture   5. Temple of Heaven.

Plan of Peking.

lain pagoda which Emperor Yung-lo had built in 1413 in honour of his mother. It consisted of bricks of the finest white porcelain, which were interspersed with green glazed bricks that were used for the nine jutting roofs.

Peking (or Peiping), in China's cold northern region, has more walls than any other city on earth. During the fifteenth century it was surrounded by several walls, which are still standing: the rectangular Chinese (or South) City wall fourteen miles long; the Tartar (or Manchu, or North) City wall fifteen miles long; also

three and a half miles of wall that is shared by the two cities. These walls are from 30 to 43 feet high.

Inside the Tartar City, but separated by a wall four and a half miles long, lies the Imperial City, consisting of palaces, temples, gardens, and a number of artificial lakes; and finally, inside the Imperial City, arises the Forbidden City, which is surrounded by a moat; this part of the city is also called the Red, or Purple, City, because its wall (2.2 miles long) is coated with red mortar. In bygone days, the emperor resided in the Forbidden City; in our time, the most prominent Chinese Communists live there.

Ever since walled-in temple areas had been built within the confines of the Babylonian cities, ever since the Acropolis in Athens and royal castle in Alexandria had been erected, there have been other cities where a second wall set off a city of temples and palaces from the general city area, because this not only provided double security, but also greater prominence. Examples of such palace areas within the city—in contrast to the detached palace city of Knossos or the Escorial—is Delhi with the castle of the Great Mogul; Prague with the Hradcany, which included the castle and seven churches; Rome with the Vatican; and several Russian cities with a *kreml*, the most famous of which is the Kremlin in Moscow. None of these palace-cities, however, has dimensions equal to those of the Imperial City in Peking, which is merely the outer court of the Forbidden City gleaming of marble and yellow glazed bricks— the navel of the empire. This is where the emperor resided, protected by a threefold enclosure of walls, while the millions of people living in the areas between the walls served as buffers, so to speak.

It is a strange coincidence that this septate super city should be the creation of a nomadic prince, the Mongolian Kublai Khan, who ruled China from 1259 to 1294 and completed what his grandfather Genghis Khan had begun: the subjugation of the tremendous Middle Kingdom. At the time of the Mongolian wars, China's metropolis was called Yenking (also Kin, or Tschungtu). Genghis Khan conquered the walled-in giant of a city in 1215 after a siege of two years. In 1264 his grandson Kublai decided to have his capital close to Yenking, which occupied a strategic location, but not in Yenking itself; and so he built his residence north of the city and named it Taidu (also Daidu or Tatu), which is now the Tartar City. In 1421, long after Kublai's time, the two cities were united under the name Peking.

In contrast to the jagged-street labyrinth of Yenking, which no doubt must have given the nomad ruler, who was accustomed to the open steppe, an uneasy feeling, the Tartar City had wide streets, straight as arrows, where one had an open view from one gate to the other all along the four-and-a-half-mile length. These open

streets allowed the horsemen to gallop without a feeling of restriction or fear of losing their way.

The people of the old city of Yenking were forced to move into the new Taidu, following the formula developed in Syracuse. Even though the new city covered an area of thirteen square miles, which is almost three times the size of ancient Rome, it was too small to house all the inhabitants of Yenking. According to Marco Polo, who stayed at the Great Khan's court from 1272 to 1292, suburbs were built outside each of the twelve city gates, and it seems that more people lived in the suburbs than in the city proper.

If we take the population density of modern Paris as a basis, it would seem that the Tartar City should have had 1.3 million inhabitants; and if we include all the suburbs, the figure should be approximately 3 million. This seems rather high; but it seems worth mentioning that, while during the thirteenth century the largest European cities—Constantinople, Naples, and Venice—had from 100,000 to 400,000 inhabitants, China had two cities of more than one million people, Peking and Hangchow.

According to Marco Polo, more than 25,000 prostitutes lived in the suburbs. "This number is no larger than necessary for the tremendous stream of merchants and other foreigners who, attracted by the Court, are constantly coming and going," the Venetian explains:

> Everything in the world that is rare and precious finds its way to this city, and this is especially true of precious stones, pearls, and spices which come from India. All the valuable products of the Chinese provinces are brought here, to satisfy the needs of the masses of people who take up residence in the vicinity of the Court. The volume of goods sold here exceeds trading in all other places, for no less than 1,000 waggons and packhorses carrying nothing but raw silk enter the city daily; and the gold encrusted materials and silks of all kinds are manufactured here in staggering quantities.

But the Mongolian Great Khan apparently did not completely trust his Chinese subjects. Each of the twelve city gates was guarded by a thousand soldiers. Strict curfew was enforced.

> In a high building in the centre of the city there is a large bell which is struck every night, and after the third stroke nobody is allowed in the streets, except if one has urgent business. Guards, in detachments of thirty or forty men, patrol the streets throughout the night in search of people who may have left their homes at improper hours. Punishment for being found in the street

without good reason usually is given in the form of clubbing and occasionally causes the death of the offender. This is the usual way of meting out punishment for any kind of crime, because they have an aversion for the shedding of blood; their astrologers have advised them to avoid it.

Their courteous ways were not limited to a reluctance to shed blood.

They greet each other with much civility and expressions of great delight; they display a fine education and much decorum, and their table manners are pleasing; they treat their parents with greatest deference.

The explanation of why gambling was considered illegal is noteworthy. Marco Polo tells us:

The present Great Khan has strictly forbidden all games of chance, to which the people in this country more than any other people on earth are addicted, and to keep them away from gambling, he tells them: "I have subjected you by the power of my sword, and consequently, everything you own, belongs to me; so, if you gamble, you gamble away my property."

The Great Khan, who owned everything, lived in a palace of great magnitude. The palace-city included barracks for the body-guard of 12,000 men, extensive armouries, and storehouses with provisions sufficient for a siege of eight years. Kublai had four wives, each one with an entourage of no less than 10,000 lady's maids, ladies-in-waiting, eunuchs, and pageboys; he also had twenty to thirty concubines, who were newly selected every two years by imperial officials from among the most beautiful virgins of the provinces. Allegedly, there were 5,000 astrologers at the imperial court who are occupied with predicting the weather, at working out the calendar, and as teachers of writing; their advice was sought before each journey, before a wedding, and before the transaction of important state business. A great observatory equipped with beautiful bronze instruments was built for them in 1279.
A ruler of such power and magnificence can, of course, be approached only with deepest humility.

If from a distance of half a mile they approach the spot where he happens to be, they show their respect by adopting a humble, gentle, and quiet demeanour; and one does not hear the slightest sound, such as shouting or speaking in a loud tone of voice.

173

Each gentleman carries a small vessel into which he expectorates while he stays in the audience chamber, for nobody would dare to spit on the floor, and after having expectorated, he replaces the lid and bows deeply.

The courtiers display the utmost in deference and adulation, when it pleases the Great Khan to drink; besides wine, the erstwhile nomad drinks only milk from a mare or a camel. Marco Polo reports:

> The gentlemen who are standing by the sideboard and serve the emperor food and drink, have to keep their noses and mouths covered with beautiful veils or silk kerchiefs, so that his food and his wine will not be contaminated by their breath; and if he deigns to drink, the pageboy serving him withdraws immediately after having handed him the cup; three steps away, the boy kneels down, whereupon the courtiers and all others present also kneel. At the same time, harpists and other musicians, of whom there are a great many present, strum their instruments and keep them sounding as long as the emperor drinks; afterward everyone in the gathering returns to his place. This deferential ceremony is repeated as often as it pleases the emperor to drink.

The very same Kublai Khan who ruled Asia from the Yellow to the Black Sea, who expected to be treated as a superhuman being, and who built around his person a world city, had resided in Karakorum until 1264—in a settlement of wooden houses and tents in Mongolia that hardly can be called a city. After all, Kublai was a grandson of Genghis Khan, that most powerful nomad in history, who aimed at razing all cities from the face of the earth—and did just that in many parts of the world.

About 1240, Genghis Khan's son Ogadi commissioned the writing of a *Secret History of the Mongols*, in which we find the following rather surprising incident: Genghis Khan summoned to his court two people from the city Khiva, in Turkistan, to explain to him "the sense and significance of the cities". It has never been more strikingly put into words how the city, as something very foreign, encroached upon a world which once belonged to the nomads, a world which during the thirteenth century for the first and last time came pretty close to being dominated by a well-organized nomadic world empire. And the most powerful man on earth had to summon a teacher, in order to get an understanding of what a city meant.

But to him, understanding was not condoning. About ninety cities were plundered and obliterated by his equestrian hordes, and the number of city dwellers they killed must have run into millions.

Hardly a city survived in the once fertile and cultivated country of Turkistan (the land east of the Caspian Sea), and in the area we now know as Afghanistan.

In addition to their innate resentment against the cities, the nomads must have been incensed because the cities' fortifications made a battle strategy necessary, which was repugnant to their equestrian armies; they could not take the cities by storm, but had to lay siege, doggedly and tenaciously, and in order to secure ultimate success, they employed the aid and advice of captured Chinese engineers. On the other hand, we are told of the Mongols' pleasure in finding, much to their surprise, that the city people never fled— which was what nomadic common sense would have expected them to do when facing a superior army; instead, they entrenched themselves in their cities, with an absurd and suicidal immobility, almost as if rooted to the spot for the express purpose of being pierced by Mongolian spears—true to their sedentary ways unto death.

Genghis Khan's world-wide empire did not have a city and would not tolerate a city. The only stable point was the holy mountain Burhan Chaldun in Mongolia. The steppe had declared war upon the city and seemed to be winning it. The first one to feel the need to settle and have some sort of residence was Genghis Khan's son and successor, Ogadi. He created something rather irrational—a nomadic city. It consisted of luxurious tents and wooden houses and shacks, which were surrounded by an earth wall; this city was located in the middle of the barren Mongolian steppes, on a desolate high plateau, with middle-European temperatures during the summer months, but Siberian climate during the winter, biting winds and the temperature dropping to 40 degrees below zero. The name of this residence was Karakorum, which means "Black Sand". The tents were black, and like the Black Death, the Mongols galloped over all Asia and half of Europe.

Ogadi died in 1241. His son Kublai transferred his residence from Karakorum to Peking, the world city that the people from the steppes had overpowered. His forefathers' hatred for the cities turned in him to partiality. The city corrupted the steppe and so became victorious.

A hundred years later, Tamerlane (also Timur, meaning "Iron") created another Mongolian world empire, choosing from the very beginning a cosmopolitan city as its centre: Samarkand in Turkistan, which today is the southernmost extension of Russia. An ancient city, it was once destroyed by Alexander the Great and then again by Genghis Khan; it was located on an artificially irrigated high plateau, whose fertile abundance was already mentioned by Marco Polo. We also read about it in *The Arabian Nights*, where the luxurious gardens around the city are described as "one of the

wonders of the world". Samarkand during its Islamic period, about the tenth century, is also the setting for the story which surrounds the famous tales: The beautiful Scheherazade saves her own life by telling her husband, the king of Samarkand, over one thousand and one successive nights, the most fantastic tales, with the result that he gives up his habit of decapitating his wives after the wedding night.

Tamerlane, on the other hand, caused more heads to roll. No longer hostile toward *all* cities as Genghis Khan was, but hostile toward *other* cities as the Assyrians were, Tamerlane reinforced his mastery over the south-western portion of Asia by thrusting deep into India, to Egypt, and right to the gates of Constantinople, staging horrible massacres in all the conquered cities.

In one city Tamerlane ordered 2,000 people to be immured alive; in another city he had 4,000 soldiers buried alive; in a third one 5,000 human heads were impaled on the minarets. In 1387 he ordered the heads of all the 70,000 inhabitants of the marvellous Persian city of Isfahan to be piled upon the walls. He left 100,000 corpses in Delhi in 1398, 90,000 severed human heads in Baghdad in 1401. He destroyed Damascus, Smyrna, and most of the cities of the Islamic world. Library buildings, however, he burned only after he had salvaged the books, so that they could be shipped to Samarkand; for there was nothing he valued more highly than culture. Donkeys, horses, and camels had to carry artists and art treasures, books and their authors, gold, silver, and precious stones off to his residence, and he employed ninety elephants for transporting marble pillars from the cities he had destroyed. He plundered the world for Samarkand's sake, as the Assyrians had done 2,100 years before his time, for Nineveh.

Samarkand, it seems, never had more than 150,000 inhabitants, but it became one of the most stupendous cities on earth, and it even consolidated its old fame of being the home of arts and sciences. In celebration of the plundering of Delhi, Tamerlane built a gigantic mosque with 480 pillars. Ostentatious buildings of marble and gold, with glazed tiles gleaming in all the colours of the rainbow, towered brightly over the city. Tamerlane re-routed the large old caravan roads of Asia so that they all converged upon his residence. Samarkand traded with Venice across the Mediterranean, and with the Hanseatic League via Moscow and the Baltic Sea.

Tamerlane died in 1405, just as he had set out to conquer China. His body, encased in an ebony casket, was brought back to Samarkand. His mausoleum, the Gur-Emir Mosque, is still the most beautiful building in Samarkand. The city in whose name as many cities were destroyed as were in the names of Nineveh and Rome is still in existence, but the years have left scarcely a trace of its one-time power.

THE DREAM OF ANCIENT NUREMBERG

AMONG ALL the countries with a highly developed city culture, Germany is the youngest. At the time when Hangchow was a city of more than a million, the largest settlement in Germany had only 20,000 inhabitants.

Upon the country of the Germanic peasants, herdsmen, and warriors, which was still far removed from the stage of city development, the Romans imposed their encampments of legionnaires, and their city colonies—the avant-garde of civilization against primeval forests, marshes, and heath where the "savages" were still roaming. When the Roman empire collapsed the Roman cities in the provinces also fell into decline, and seven hundred years passed before the realm of the Germanic language started on its own to create urban settlements. It is surprising that Germany was to become one of the world centres of urbanization and, what is more, that the third-largest city on earth was located within her boundaries, even though it enjoyed this distinction only for one decade.

The largest and richest Roman city in Germania was Trier (or Treves), with 80,000 citizens during the fourth century; and this figure was not surpassed by a German-built city until the seventeenth century. Next to Treves in importance were Cologne with 50,000 inhabitants, and Mainz, the administration and supply centre for the Limes Germanicus, as the Romans called the line of fortifications they had built against the Germanic peoples north of the frontier. Other important Roman settlements were Nijmegen and Utrecht in what is now the Netherlands; Xanten, Bonn, Worms, and Strasbourg, on the Rhine; Regensburg and Vienna, on the Danube, and Augsburg, Kempten, and Zurich.

Most of these cities initially consisted only of a fortified rectangular camp, in the shadow of which a suburb would develop, inhabited by tradespeople, innkeepers, craftsmen, and prostitutes. Some of the places were from the outset built as cities according to Roman models. The merchants of Trier and Cologne grew rich through their trading with the Roman army that was stationed at the Rhine. Trier was at the centre of a large network of long-distance highways and had all the characteristics which also dis-

tinguished wealthy Roman cities in Spain and Syria: palaces, well-kept streets, pillars and decorative buildings, an amphitheatre, and tremendous thermae, which within the realm of the empire were excelled only by the two largest palatial baths in Rome.

The inhabitants of Trier were not citizens of Trier, but, according to the grotesque provisions of the city-state Rome, they were citizens of the city of Rome. When Rome deteriorated in the fifth century, this fact was one more reason for the Roman cities on Germanic soil to be drawn into the whirl of the decline.

In A.D. 355 Cologne was destroyed by the Franks. From 411 to 428 Trier was four times laid in ashes by the same Germanic tribe. In the fifth century, being conquered, pillaged, destroyed, and laid waste was the fate of all the Roman cities in what is Germany today. In their uneasiness about cities, the Germanic people who followed in the wake of this destruction usually settled outside the city gates and left the area of ruins uninhabited, even though some of the houses might still be standing. The crumbling villas and palaces served them as barns and stables. Cows ambled among pillars, and chickens left their droppings on floors of mosaic. The magnificent Roman aqueducts fell into ruins, blocks of marble from the rubble of great buildings served as pavement for the streets. The culture of the city—writing and money, schools, public baths, and flourishing trade—came to an ignominious end.

It is rather difficult for us to understand how hard it must have been for the Germanic people to feel their way about this strange creation, the city. Charlemagne and his successors ruled, very much like Genghis Khan, in the nomadic manner. The Frankish empire from which the Occident finally emerged had no capital. The emperors moved from palatinate to palatinate; each of these was surrounded by a wall and consisted of a castle, houses for the entourage, storage houses for provisions, and often a farm. Aachen (Aix-la-Chapelle), the imperial palatinate where Charlemagne is buried, was built largely from the debris of Trier. There were a number of such imperial palatinates: Frankfurt, Worms, Magdeburg, Speyer, Nuremberg, Cologne, and Zurich. Even though the emperor might move on, more and more people stayed behind—clerks and soldiers, merchants and craftsmen. The palatinates were important nuclei for city development.

The same can be said with even greater validity about the burghs and castles which Henry I (Henry the Fowler) built. He built them at the beginning of the tenth century in order to get the upper hand over the Hungarian horsemen and the Slavs. Most of the people stationed in those burghs were soldiers. For the villagers in the surrounding areas, these fortifications were places where they could find refuge in case of danger. Although the cities he founded never

became very large, the refuge-burghs of Henry I played a significant rôle in German city development.

It is interesting to consider how much the connotation of the German word *Bürger* (burgher) has changed through the centuries. Like the English word *citizen* (which derived from *city*), it means today not a dweller in a *Burg*, or burgh, as it did originally, but a member of a country or state. This definition would have been incomprehensible to the *Burg* dweller of the Middle Ages, for a *Burg* was always a city—a state does not have walls around it.

Equally strange to him would have been the derogatory connotation that the adjective *bürgerlich* (bourgeois) has acquired in some quarters. The *Bürger* of the Middle Ages was a member of a privileged class, that of freeholders. Below this class was a whole range of dependent groups. In the city these included journeymen, apprentices, and household servants. On the land there were the half-free serfs, most of them tenant farmers who had to turn over a share of their crops to the lord of the manor and were under his jurisdiction; and the slaves, the unfree, who lived in complete dependence on the lord. This complex feudal structure was abolished by the reforms that were set in motion in many parts of Europe in the wake of the French Revolution. In Germany the last vestiges of the system were removed by the Revolution of 1848.

Long before that time, however, the cities themselves contributed to a lessening of these strict class distinctions. In fact, the development of cities during the Middle Ages was largely attributable to the influx of peasants and country folk who sought to exchange their complete dependence upon the landowners for a lesser dependence upon the burghers. As late as the eleventh century there were only a few settlements in Central Europe that could really be called cities. Few of the 140 towns in Germany had more than five hundred inhabitants, which is smaller than a medium-sized village of today.

From approximately 1100 on, cities began to grow rapidly, and a great many new ones sprang up. "City air means freedom!" was a slogan that reverberated throughout Germany in the twelfth century. A century later the number of German cities had risen to two thousand.

Besides the imperial palatinates of Charlemagne and the burghs of Henry I, there were the episcopal sees to provide the nuclei of burgeoning cities. The cathedral attracted markets and people, and an enclosing wall added to its attractiveness; the protection of walls seemed highly desirable at a time when practically all men, except the clergy, were constantly armed, and when homicide was as frequent an offence as defamation of character is today. Churches and walls characterized the early German cities as temples and

walls had characterized the Babylonian city-settlements five thousand years earlier.

Many serfs and bondsmen tried to buy their freedom so they might move to the city; others implored the bishop to buy them from their landowners; many of them simply fled inside the city walls, where they were given asylum, especially since they were welcome as labourers. During the twelfth century the cities grew strong enough to enact laws restricting the extradition of such fugitives. If their former masters did not sue for their return, the serfs were given their freedom.

Another factor that encouraged migration to the cities was Germany's agricultural development, which had reached peak in the twelfth century. By that time there was hardly any more untilled land than there is today, and the number of peasants, of villages, and of farmhouses was about the same as it is now. The country was fully settled. The peasants' sons, for whom there was no room on the farm, could find work only in the city, unless they moved on to the areas east of the Elbe, which began to be colonized in the twelfth and thirteenth centuries. In Pomerania alone, forty-one German cities were founded during the span of seventy years.

Also contributing to this rapid flourishing of cities was an invention that in our era of jet propulsion seems ludicrously insignificant: the horse-collar. The invention of the wheel, and with it the wagon, in Babylonia in the fourth millennium B.C.; the domestication of the camel in Egypt about 1100 B.C.; and the building of the Roman highways—these were revolutionary developments in the history of transportation. But an equally important advance was made in the eleventh century, when the horse-collar made wagon transportation of tremendous loads feasible. The old-style breast harness allowed the horse to pull only with its breastbone; the leather girth pressed the shoulder blades together and inhibited breathing. The horse-collar made it possible to utilize fully the horse's pulling power by putting the strain squarely on the horse's powerful shoulders, without pressing on the lungs. This invention, by facilitating the transportation of heavy loads overland, made it possible for inland cities, as well as those on sea coast or river bank, to become important trading centres.

Augsburg and Nuremberg were among the many cities that benefited. They too were granted staple right, the right to force any passing merchant to sell his wares in the local market place or to pay duty if he declines. (This had formerly been the prerogative only of port cities and pertained only to water-borne commerce.) Augsburg in the thirteenth century was still far behind the old Rhine and Danube harbours, such as Cologne, Vienna, and Regensburg. And on the Baltic Sea a rapidly growing harbour city had

been added—Lübeck, one of the cities founded in the twelfth century by Henry the Lion, Duke of Saxony and of Bavaria, who also founded the cities of Brunswick and Munich.

The founding of Munich is a striking example of how one "made cities" in those days. The old salt road from Reichenhall crossed the river Isar near the little town of Föhring, which belonged to the Freising convent. In order to draw the remunerative salt trade on to his own sovereign territory, Henry the Lion in a bold sweep burned down Föhring and the old Isar bridge and led the salt route farther upstream, to cross the Isar at the spot where the Munchen cloister was located. This was the beginning; today more than a million people are living in Munich.

And so, finally, from the twelfth century on, there were cities in Germany, though it must be admitted that pigs could be heard grunting, and if it rained, the bottomless mud in the streets had to be decked with straw, while the ducks waddled in the puddles in front of the town hall. And whenever the city prepared itself for a visit of the emperor, or for some other big occasion, it would remove all corpses from the gallows and all dung from the principal thoroughfares. That the cities existed was a fact, but some visitors from lands with an older tradition of city culture seemed at first not quite ready to believe it. Among them was the Italian poet Petrarch, who left this account of his sojourn in Cologne:

> Cologne received me . . . a place famous for its location and for its river, famous also because of its population. It is strange to see how fine the manners are in this barbaric country, how beautiful the view of the city, how proud the deportment of the men, how lovely the demeanour of the women. It so happened that I arrived on Midsummer Day in the evening; the sun was slowly sinking in the west. But my persuasive friends induced me to walk with them from the inn to the river, to see a remarkable spectacle; the riverbanks were studded with a large glittering crowd of women. I was taken aback—great gods, what figures, what faces, what bearing! One could so easily have become enraptured if only one had brought a heart free of any ties . . . It was a tremendous crowd, but there was no pushing or shoving. Many of the women had bedecked themselves with fragrant herbs and had pushed their sleeves up above the elbow. And so, in a gay jumble, they washed their white hands and arms in the turbulent river, and, murmuring in a strange tongue, they said charming things to one another . . . [Petrarch learned] that it was a very old custom in these parts, and that especially the women-folk were firmly convinced that by washing in the stream on this very special day all threatening adversities for the coming year

were rinsed off and that the future would hold but agreeable events. And for this reason each year they undertook this purification with always new and inexhaustible zeal . . . I could only reply with a smile, "Oh, more than happy are you, people of the Rhine valley, if your river washes away your misery. Neither the Po nor the Tiber has ever been able to do that much for us."

On some of the following days I wandered about the city from early morning until evening, always with the same guides— indeed, not at all a disagreeable task, not so much even on account of all that one's eye could see, as in remembering our forefathers who so far from their own country left such magnificent mementos of Roman greatness . . . In the centre of the city I saw the incredibly beautiful though unfinished cathedral, which not without good reason is called the very highest.

The cathedral at Cologne was not finished until the nineteenth century. Goethe called it "the prototype of those gigantic conceptions straining upward to the skies in almost Babylonian fashion so utterly out of proportion to the realistic means that its execution by necessity had to be interrupted".

"Babylonian" has come to stand for that particular mixture of piety and arrogance out of which the Tower of Babel was created.
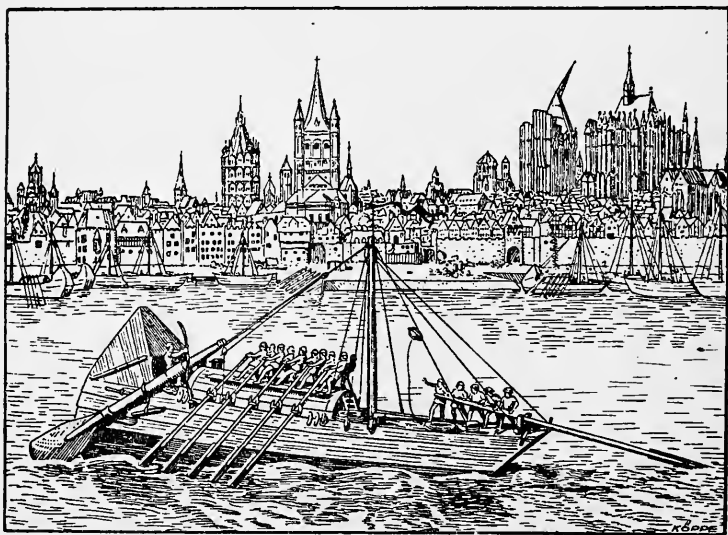
Cologne in the late Middle Ages. In the right background the half-completed Cathedral, work on which was halted for more than 400 years—from 1437 to 1842.
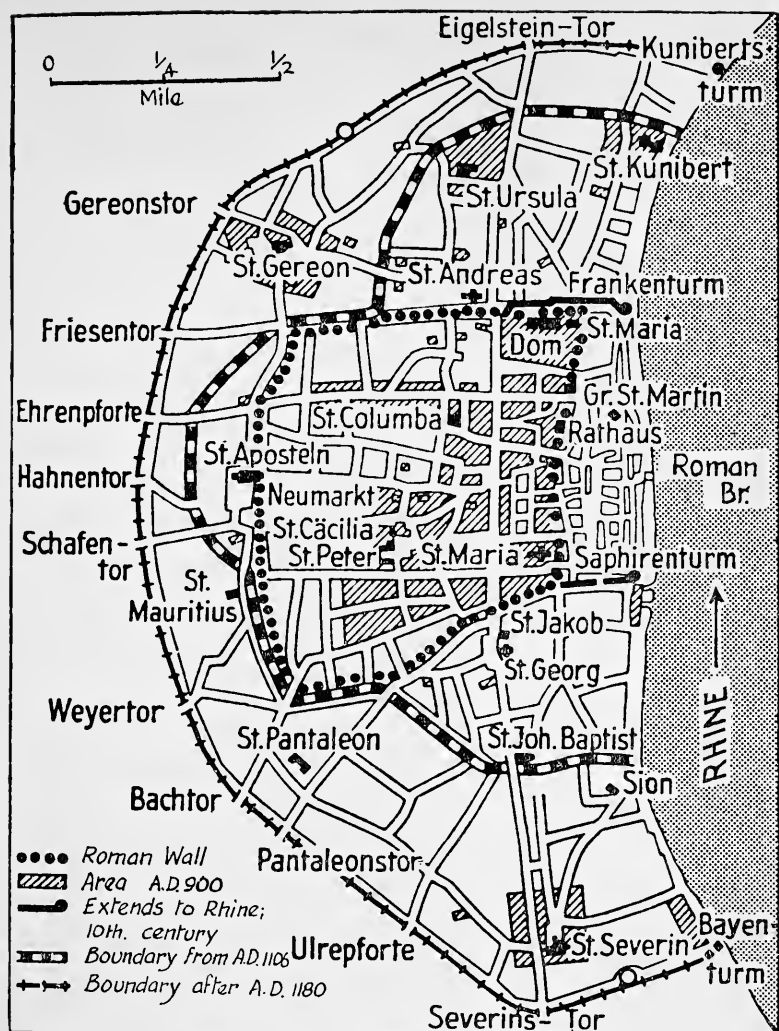
Old Cologne: the growth of a city.

In the year 1248 a small city of no more than 25,000 inhabitants, but wealthier and larger than Vienna or any other city within the German realm, set out to build the tallest church in the world, as boundless a scheme as the building of the pyramid had been. Far beyond the Rhine, the cathedral was to herald the glory of God and at the same time the magnitude of the city of Cologne. For four hundred years, however, it demonstrated—with a crane atop the

unfinished south tower and a deep ravine in the nave—that the people of Cologne had been over-ambitious.

The self-reliance of the young German cities found expression in political and commercial life as well, and that in a manner which seems astonishing today. For five hundred years most of the larger cities in Germany were not under the domination of the state in which they were located, but directly under the rule of the emperor.

The cities of ancient Greece all ruled over their rural environs; there was not a piece of land that did not belong to one of the cities. During the Roman imperium all the land was considered the property of the *one* city, Rome. In Germany, on the other hand, not only was the surrounding land not the property of the city, but the city was not subject to the reigning princes; the imperial city was a foreign entity, an insolent, walled-in dwarf republic cut out of the territorial monarchy.

The special privileges of the free imperial cities had their origin in the oldest city-like settlements of the Middle Ages, the palatinates, which naturally had to be subject directly to the emperor. For the episcopal cities, which were independent of the secular princes, the step to immediacy, or direct responsibility to the emperor, usually was not a big one. Other great cities of western Germany were able to wrest the same privileges for themselves during the thirteenth and fourteenth centuries. Zurich and Berne were imperial cities as early as in 1218; Nuremberg in 1219, Lübeck in 1226, Cologne in 1274.

From 1489 the imperial cities had their own representation as independent entities in the Diet of the Holy Roman Empire. The highest number they ever reached was eighty-three, but in 1806 when, with the demise of the Holy Roman Empire, the imperial cities lost their privileges, the number had already shrunk to fifty-one. The Congress of Vienna reinstated only Hamburg, Bremen, Lübeck and Frankfurt as imperial cities; Frankfurt lost its privileges in 1866, Lübeck in 1937, while Hamburg and Bremen still retain theirs, the designation having been changed from "imperial cities" to "federal districts".

The great era of the imperial cities was also the time of the greatest dissension within the German state. Jealously these cities guarded their privileges, which were, to them, more important than justice. Even some very tiny towns in south-western Germany had contrived to achieve immediate vassalage to, and thus the protection of, the emperor. Not infrequently the competition for special advantages led to war, which sometimes brought a city to the brink of ruin. Until 1495, when the so-called Treaty of Eternal Peace was concluded, any free man might challenge another man, or a burgh, or a city, or a prince, or even the emperor himself, to a feud—that is, a private war. The feud had to be announced in strict

accordance with prescribed protocol; that done, each party pillaged and killed as best it could. However, feuds within a city, or within the area of its jurisdiction, were prohibited.

In the late Middle Ages private wars often were waged against the cities by knights and feudal lords who felt that their very existence was threatened by the growing city culture. Not infrequently, the knights tried to recapture by force of arms the estates

Northern Europe in Hanseatic Times.

or landed property which they had pawned to the rich merchants in the city. When they announced a feud, the city became a fortress and armed all the men. Usually, the knights would not attempt an assault on the city, but would blockade trade routes, burn down forests belonging to the city, or take possession of villages and outlying mills. The feud would continue until the city waived its claim to what had become its property.

In such manner, or simply by assaults on heavily loaded freight

waggons, and without even announcing the feud, knighthood, which once had ruled the country together with the emperor, now conducted its rear-guard skirmishes against the newly powerful in Germany, the rich merchants of the large cities.

The most effective instrument in the hands of the leading merchants was the Hanseatic League, or Hanse, which originally was an association of German merchants for the collective safeguarding of their interests in a foreign trading centre. As early as the twelfth century the merchants of Cologne formed a Hanse in London; some time later there were influential German Hanses in Bruges, in the Norwegian harbour city of Bergen, and in the important fur market Novgorod, south of Petersburg on Lake Ilmen (not to be mistaken for the much larger modern city of Nizhni Novgorod, now Gorki, east of Moscow). The German commercial settlement at Novgorod, which fully controlled the trade of that great market, was a small fortress within the city, well protected by guards and trained dogs, stocked with barrels and bales of merchandise. The equally well-protected trading company in Bergen felt so strong that its garrison slew one of the king's governors and a bishop when they tried to curtail the German privileges.

By 1358, under the leadership of Lübeck, the Hanse had developed into a loosely woven alliance of the mother cities and their foreign trading settlements and numerous others which joined the League. In the fifteenth century there existed 160 Hanseatic cities, the most famous of which were Cologne, Magdeburg, Bremen Reval, and Visby (or Wisby). The last-named is located on top of a cliff approximately one hundred feet high, on the west coast of the Island of Gotland, in the Baltic Sea. Ancient coins found in Visby indicate that it had once been a trading centre for goods from as far away as Asia, and south-eastern Europe, as well as from Russia and western Europe. From the eleventh to the fourteenth century, Visby, at that time inhabited by Swedish and German settlers, was the largest and by far the richest city of Scandinavia; it also was the leading city in the Hanse until Lübeck took its place. Then it suffered one of the strangest reverses that ever brought doom to a large city.

The main source of Visby's wealth was fish. From the twelfth to the fourteenth century the Baltic Sea was Europe's great fishpond, where cod and especially herring abounded. Salted herring was an important food and a commodity that brought millions in profit. The schools of herring, which at first favoured the German shores, later turned north and swarmed along the south-east coast of Sweden and around Gotland. The annexation of Gotland in 1361 by the King of Denmark, therefore, seemed to spell disaster for the Hanseatic cities. But the Hanseatic League, in itself a commercial

alliance without political ambitions and without a function in the German empire, was powerful enough to wage war when its commercial interests were threatened.

From 1367 to 1370 the Hanseatic cities conquered Denmark, Gotland, and the southern tip of Sweden, the Schonen peninsula. Along the shores of Schonen each Hanseatic city founded a settlement consisting of an office, wooden houses for the fishermen, the mechanics, artisans, traders and guard personnel, as well as stone houses for pickling and smoking the herring. The whole area was under the supervision of the governor of Lübeck and was protected against Denmark by palisades and moats. Then, soon after 1400, the herring again made one of their exasperating changes in course, quitting the Baltic Sea altogether and massing off the Dutch shore. Visby, already harassed by the proximity of all too many Hanseatic colonies and the rise of Lübeck, lost the basis of its existence, soon became impoverished, and was eliminated from the ranks of great trading centres of the Middle Ages. Many fishermen became pirates. The one-time mistress of the Baltic Sea and queen of the greatest commercial power north of Venice became a small provincial town for which the tremendous thirteenth-century wall with its thirty-eight defence towers was much too large.

Lübeck became the most important harbour of the Baltic Sea and of Germany, and the Baltic in the late Middle Ages was the most travelled stretch of water, second only to the Mediterranean. Massive brick churches, a monumental fortification system, of which the Holsten Gate built in 1478 still serves as a reminder, rich-looking patrician houses, a flourishing of the arts and of book printing, as well as luxury products such as the famous marzipan, gave Lübeck the reputation during the fifteenth century of being among the wealthiest and most splendid cities, equal to Venice, Florence, and Bruges.

The breaking up of the Hanseatic League in the sixteenth century and Lübeck's decline had to a great extent the same causes: the growing disunity among the Hanseatic cities, the increasing competition of the English and the Dutch; and, most of all, the discovery of America and of the sea route to India, which caused the changing of the traffic routes from the Mediterranean and the Baltic to the Atlantic and the Indian Ocean. The autocratic spirit of the Hanseatic League, however, stayed alive in later generations of great merchants; the name *Hansestadt* remained a distinction, which Lübeck, Hamburg, and Bremen still enjoy.

The Hanseatic League had opened up the region of the Baltic and the North Sea for world trade and, to some extent originally, for Christianity. The League carried the young German city culture to faraway shores and helped the great German commercial cities

to acquire a position of world power, thereby diverting trade from Scotland to Regensburg, from Paris to Novgorod—trade that included herring from the Baltic Sea, grain from Pomerania, furs from Russia, hardware and iron from the Rhine provinces, cloth from Flanders, damask from Constantinople, wine from Cyprus, luxury articles from Venice, and from India, Oriental sweetmeats scented with rose water, and spices, the latter so precious that they were sold by apothecaries.

About 1500, Lübeck may well have been Germany's third-largest city, even though it had only about 25,000 inhabitants. The city of Cologne was largest with approximately 35,000 people. The population figures for Vienna vary between 20,000 and 60,000. It seems that Augsburg, Breslau, Danzig, Erfurt, Hamburg, Nuremberg, Prague, Strasbourg, and Ulm each had more than 20,000 residents. Berlin at that time had not yet grown beyond 12,000 inhabitants.

In 1348 Prague acquired a university—the first in the German realm. Strasbourg was distinguished by the great cathedral whose solitary steeple, completed in 1439, was 467 feet high and for a long time the tallest structure on earth.

Seventeenth-century Strasbourg; the cathedral and the wall dominate the city.

But even larger and richer than the German cities were those in the Netherlands: on the estuary of the Rhine, the Hanse city of Dordrecht, today hardly more than a suburb of Rotterdam; at the confluence of the Scheldt and the Lys, in what now is Belgium, the city of Ghent, famous for its weavers of fine cloth and one of the largest cities on the European continent about 1300, when it had approximately 60,000 inhabitants; and Bruges, the most important of all.

In its greatest period, in the fourteenth and fifteenth centuries,

Bruges was called the Venice of the North, because it too was threaded by canals, and because it was the only city north of the Alps that came close to the splendour and wealth of the famous Italian city. The important trade route from Italy to the North Sea ended in Bruges, where the merchandise from the Mediterranean and the Orient was transferred on to ships that carried the goods to England, northern France and the Baltic Sea, while cloth from Flanders and England went on a south-easterly journey. The rich citizens of Bruges gilded the façades of their houses. The city's self-confidence expressed itself in a tower 353 feet high, the Belfry, which served no other purpose but to provide adornment. The Belfry of Bruges and the one at Ghent, which with 386 feet was even taller, were the tallest secular structures since the lighthouse of Alexandria.

In the fifteenth century, as the cloth industry declined, the harbour silted up. The great bankers and merchants moved from Bruges to Antwerp, which rapidly grew into one of the largest commercial centres on earth and during the sixteenth century became a metropolis in the modern sense; in 1567 it had 125,000 inhabitants, second only to Paris among the cities north of the Alps. The decline of Bruges was inexorable; it became known as "Bruges la morte". Wrapped up in the proud splendour of its patrician houses and its romantic canals, it has for five hundred years been dreaming of its past magnificence; the city is now almost ten miles away from the ocean, and with its present population of 60,000 very likely smaller than it once was.

In the seventeenth century two cities moved up to metropolitan rank: the world port of Amsterdam and the great textile centre of Leiden, which was located on the Rhine delta. They probably pre-dated Vienna, the oldest metropolis in the German-language realm —the first census taken in Vienna in 1754 showed a population of 175,000 people. The Leiden *Zeitung*, first published in 1680, was for a long time the leading European newspaper. Casanova asked for it, though in vain, as reading matter in 1755, when he was imprisoned in Venice.

Until Vienna and, later, Berlin began to flourish, there was only· one German city that could perhaps be called a cosmopolitan city, even though it was tiny according to modern scales: the city of Augsburg, during the sixteenth century the bastion of Europe's millionaires and the home of the Holbein and Mozart families. About 1500, this imperial city on the river Lech began to push Cologne and Lübeck into the background. There were three reasons for its development: its situation on the great trade route between Italy and the Netherlands, the richest Occidental countries of the late Middle Ages; its textile industry, which ranked the best in

Europe; and finally to the exceptional skill and enterprising spirit of its great merchant families, outstanding among them the Fuggers and the Welsers.

Jakob Fugger (1459–1525), the grandson of a master weaver, was the most powerful financier in Europe. He lent great sums to several popes and to the emperors Maximilian I and Charles V. On those occasions when the Imperial Diet was in session at Augsburg, the emperor and his entire household stayed at the Fugger palace. The Fugger family established a copper monopoly in Europe by acquiring all the Austrian and Spanish copper mines. They erected splendid buildings, they established foundations and libraries and created art collections. A contemporary account of a banquet given at the Fugger palace in 1575 tells that—

> even the Roman emperor could not have laid a more sumptuous table; it was of an extravagant splendour. The meal was served in a hall where one saw more gold than colours. The floor was of marble and so highly polished that one seemed to be walking on ice. There was a sideboard the whole length of the hall, which was set with drinking vessels and with strangely beautiful Venetian glasses; it was rumoured that the table altogether was worth a ton of gold.

Augsburg's second great millionaire family were the Welsers, owners of a firm engaged in trading, mining, and banking. In 1505, eight years after the Portuguese, they sent the first German ship around the southern tip of Africa to India; they were the owners of the largest private fleet of that time. The House of Welser had offices in Antwerp, Lisbon, and on the island of Haiti off the recently discovered continent of America. From the king of Portugal they purchased complete yearly harvests, and in 1528 Charles V awarded them the territory that is now Venezuela, in recognition of their financial support of his election as emperor.

There was one stipulation, however: they had to conquer and colonize the country. The Welsers' attempts to develop their acquisition were not successful. Three successive governors lost their lives in the new territory; one was slain by Indians, another succumbed to a tropical illness, and the third was murdered by a Spaniard. Rival Spanish colonizers fought with the agents over jurisdiction, and in 1546, when the dispute was submitted to the emperor, he revoked the Welser monopoly.

This was the end of a small German city's attempt to move up into the ranks of colonial powers. Nevertheless, Augsburg remained one of the most prominent European banking and trading centres until the outbreak of the Thirty Years' War; on the other hand,

with approximately 40,000 inhabitants (about 1600), it was one of the smallest cosmopolitan cities that ever existed.

If one speaks of the flowering of the German cities in the late Middle Ages, of the masters and the guilds, of the romantic night watchmen and the leaded-glass windows, one visualizes most frequently the old city of Nuremberg—the image sketched by Albrecht Dürer, described by Meistersinger Hans Sachs, sung of by Richard Wagner, shipped all over the world as decoration on the tin boxes for the famous *Lebkuchen*, and, alas, almost obliterated during the Second World War. Nuremberg was a great trading centre, but it was even more famous for its craftsmen and artists. Its goldsmiths and master locksmiths, its wood carvers and stonecutters, its tin and brass workers, saddle makers and armourers, its painters, sculptors and copper-plate engravers, among them Albrecht Dürer and Veit Stoss, enjoyed world fame at the beginning of the sixteenth century. In 1501 the locksmith Peter Henlein made the first pocket watch. Toys called *Nürnberger Tand* ("Nuremberg trinkets") were exported as early as the fifteenth century.

In 1492 the Nuremberg geographer Martin Behaim constructed the first representation of the earth in globular shape. He was twice invited to Lisbon, where he gave geographical instruction to the Portuguese sailors who were sent out to find the sea route to India; he also championed the idea of a water route to India by way of a passage through South America, and Magellan is said to have used one of Behaim's maps when he sailed around the world for the first time and actually found such a passage to the Pacific Ocean between Patagonia and Tierra del Fuego.

The streets of Nuremberg, as in all German cities in the Middle Ages, were narrow. Most of the houses, which were built with party walls, were narrow too, sometimes with fronts no more than thirteen feet wide, and quite frequently the kitchen and the servants' rooms had no windows at all. Dangerously steep narrow stairs led to the one or two upper storeys. If the house belonged to an artisan or tradesman, the ground floor usually contained only the store or workshop besides the hallway and kitchen.

About 1500, most of the lanes in the prosperous cities were paved; the pavement covered wooden aqueducts which supplied water for the fountains in the squares. Illumination for the streets was known in Alexandria and Antioch about the year 1, but not so in Cologne or Nuremberg about 1500. Anyone who ventured out into the streets after dark carried a lantern or a torch. Fire pans, in which pitch was burned in times of siege or unrest, were attached only to corner buildings. The gates were closed at night and the watchman on his tower kept constant vigil for enemies and conflagrations. Most

cities had fire-fighting ordinances, because in those days fire fighting was the concern of all a city's inhabitants; any conflagration could quickly become a torch that would destroy the entire city.

City life was completely regulated, even down to matters of personal conduct, by ordinances of the municipal council, by rules imposed by the guilds, and by strictly supervised rules of moral conduct. We are willing to put up with a market ordinance or a currency ordinance. But in those days they had, for instance, a rigorous ordinance prescribing for each class and profession the kind of clothing that was to be worn, and nobody would have dared to follow his own ideas of how to dress, or, worse, to try to wipe out class distinctions. If anyone wished to arrange a public dance, he had to get official permission, which most of the time was *not*
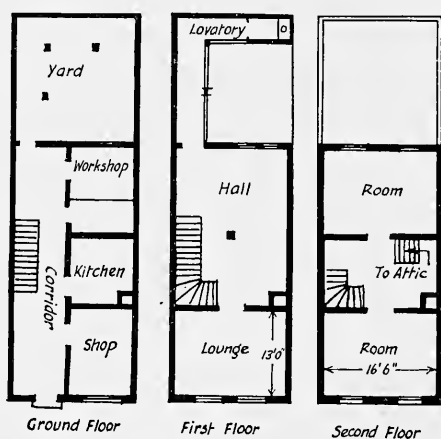
Plan of a German craftsman's house in early sixteenth century. Note the narrow frontage.

granted. If permission was given, the dance could only last until dusk, and the municipal council's observers immediately stepped in if a dancer as much as opened a button at his neck or if he swirled his partner a little too much.

The strictest of all were the guild regulations. Membership in a guild was mandatory not only for all mechanical and artisan professions, but also for showmen, barber-surgeons, even prostitutes and beggars. The craft guilds saw to it that masters were thoroughly trained, and they guarded their economic security by setting price standards and by enforcing strict regulations concerning uniform conditions of production. On market days the guilds sent spies to

track down the so-called *Bönhasen*, craftsmen who, without guild approval produced secretly and sold cheaply.

The tyranny of the municipal guilds was the object of much ridicule, especially in the villages. Many of Till Eulenspiegel's pranks drew their merriment from the outwitting of a respectable master craftsman, as, for instance, when the famous jester baked owls and long-tailed monkeys for a master baker, when he soldered hammer and tongs together in a blacksmith's shop, when he sold dirt to a shoemaker instead of tallow, when he sewed a cat into a rabbitskin at a furrier's. Some of Eulenspiegel's tricks were played on the people of Nuremberg. Once, passing himself off as a physician, he promised to heal instantly all the sick at the hospital. He got them on their feet by threatening to burn the slowest runner to a cinder. In the grip of fear, they suddenly all could run, and he collected 200 florins for the cure.

Till Eulenspiegel probably never lived. But that does not matter as much as the discovery of what made Germany laugh about 1500, when this popular book of tomfoolery was put together. According to the great number of chapters on the subject, one would assume that Germans laughed most heartily about all the things Eulenspiegel managed to do with his excrement. And the book is full of the pranks he is supposed to have played on the crippled and the blind and on helpless animals. The fact that it once was considered a good joke if the fool earned his money at the expense of cripples seems rather unpleasant to us, and we suspect that we might not have felt very comfortable in the Germany of about 1500; we also get a hint that we do not really know the cities we love, or, at any rate, that our image of romantic old cities is largely based on ignorance—or on the wish to deny the truth access to our dream world.

If we just take a short glance back, the complete guardianship over city dwellers through ordinances and rigid tradition would be extremely onerous indeed to many of us. In 1503 the renowned sculptor Veit Stoss, in Nuremberg, was "burned through both cheeks" because in his desperation he had forged a promissory note. A bad tooth had to be extracted by the barber-surgeon without any kind of anaesthesia. Many faces remained pockmarked for life. It was a normal fate of children to die of cholera. And we may as well admit that most of us would have found the hygienic and social conditions of the famous city of Nuremberg quite intolerable.

It also comes to mind that the urban romanticism, of which we tend to think nostalgically and which we still hope to find in quaint places like Rothenburg ob der Tauber, or in the old sections of the city of Berne, or in the graachts of Amsterdam, might not even be as far removed as the days of Dürer, but may actually stem from the much more recent period of Spitzweg and the nineteenth

century, when the famous old towns still retained their appearances, but life was more pleasant, thanks to improved hygienic conditions, and less inhibited, thanks to the teachings of the Enlightenment; a time when automobiles did not yet fill the streets with noise, while in other cities the factory smokestacks already heralded the final collapse of the Middle Ages. It must have been a pleasure to live in the old part of Nuremberg during the nineteenth century, where the character of the Middle Ages had been preserved. Admittedly there was no Veit Stoss in those days in Nuremberg, but neither did a forger have his cheeks pierced.

We may daydream of the times when the Munich apothecary Carl Spitzweg, who was also a painter, and Ludwig Richter, of Dresden, immortalized the fading Biedermeier on their canvases and on the covers of cigar boxes; when in Joseph von Eichendorff's poetry "the fountains sleepily murmur all through the splendorous summer night", when one consciously learned to appreciate and enjoy—in the twilight of the approaching industrial world power— what had been familiar to the people of Nuremberg in Dürer's times: the seemingly indestructible order; knowing where one belonged; who one was and what one was entitled to; pride in one's home town, which had style and character, and which cosily and picturesquely cuddled up to its towers, gables, and lanes.

The nineteenth century bade farewell to the walls and the gates which surrounded the city like a snail's shell, making the people feel happily protected against the wide, ferocious, outside world which was something quite different from Nuremberg. With the help of Spitzweg and Wagner's *Die Meistersinger*, there is a little niche in the German soul reserved for old Nuremberg, the German prototype of the city, the lost paradise. No wonder that most of the people in the audience were horrified when in 1956 Wieland Wagner in Bayreuth, at a performance of the *Meistersinger*, dared to ban the homely gingerbread wings from the stage. His action not only destroyed the Wagner image, it was an encroachment upon the German soul.

Indeed, where would we still find that contemplative frame of mind, that confidence and great peacefulness which exude from the verses of Friedrich Holderlin, who in time was so much closer to Spitzweg than to Dürer:

All over town is peace now, quiet is the lighted lane,
The carriages bright with torches rushing off;
Satisfied with the joys of day, people go home to rest.
A pensive mind weighs gains and losses contentedly at home;
The busy market place is devoid now of grapes and flowers,
And of the products made by skilful hands.

But from faraway gardens sound the strains of strings,
Perhaps a girl in love, or a man lost in his loneliness
Thinking of distant friends or of his youth; the fountains are
Forever flowing and murmuring near the fragrant flower bed.
Quietly through the dusk the sound of bells wafts by
And, conscious of time, the watchman calls the hour.

Chapter 4

ITALY'S GOLDEN CITIES

IT IS only in our day that Venice is seen in a romantic light. In the days of the Doges it was as cruel as any city of antiquity or the Middle Ages.

The Italian cities developed on a much more grandiose scale and in a far more violent manner than the cities north of the Alps. Moreover, in the early Middle Ages, city culture had not yet completely disappeared. The Germanic king Odoacer, for instance, established his headquarters in Ravenna after having deposed the last Roman emperor; Theodoric, the king of the Ostrogoths, maintained his residence in Ravenna, where he eventually was buried; Dante too was buried in Ravenna. Yet, by the time the Italian cities reached their greatest flowering Ravenna was not among them. About the end of the first millennium, the harbour silted up and the city wasted away—sharing the fate of Eridu, Miletus, Ephesus, and Bruges.

In the ninth century, under its Arab rulers, Palermo became the capital of Sicily and grew into one of the most glamorous cities of the Islamic world. Frederick II, the Hohenstaufen ruler of the Holy Roman Empire from 1215 to 1250, spent his youth there and, as king of Sicily from 1198 to 1212, helped the city attain its second great period. In 1500 Palermo was still the third largest city in Italy, preceded only by Naples and Venice.

Naples too, the old Greek colonial city and during the Middle Ages the capital of the Kingdom of Naples, saw its most glamorous days in the thirteenth century under Frederick II. Boccaccio, in his *Decameron*, declared Naples "the ancient city which is perhaps as agreeable as, or even more agreeable than, any other city in Italy". For centuries it was also the largest city in Italy; it had about 400,000 inhabitants in 1800 and became outranked only after the First World War, first by Milan and then by Rome.

But Naples was far from being one of those grandiose cities which, bristling with vitality, gave birth to the modern era, and where the visual arts as well as intrigue and murder were developed to the highest perfection. All these cities were located in the northern third of Italy: there was Bologna, which boasted one of Europe's first and finest universities (Dante, Petrarch, and Copernicus studied

there); there was Milan, the dominant force of the Lombard League, which during the twelfth century tenaciously fought against the German emperor; Genoa, the leading maritime power, which in the thirteenth and fourteenth centuries controlled commerce as far away as the Black Sea, with colonies in the Crimea; Padua, whose university gave essential impetus to the Renaissance; the great maritime city of Pisa, where Galileo, one of the founders of

Italy's golden cities.

modern science, was an instructor; and, finally, Venice and Florence, the most powerful and magnificent of these city-states, which during the eleventh century pushed nobility and the clergy more and more into the background and fought among themselves as fiercely as the Greek cities once did.

In Italy at the beginning of the modern era, popes, kings, princes, republics, clergy, barons, war heroes, usurpers, bastards—all seemed constantly embroiled in deadly wars. There were no perma-

nent alignments; alliances were constantly shifting. Momentary interests, personal power or advantage, sudden opportunity, suspicion, fear, treachery, calculation, and impulse determined the direction of the struggle and the fate of states and individuals. In fifteenth-century Milan two dukes are assassinated on their way to church; the beautiful city of Piacenza is plundered for forty days by the troops of Milan, and then is left in ruins; Duke Ercole I of Ferrara, patron of the great poet Ariosto, poisons his wife in 1493, after having learned that she intended to poison him.

Lucrezia Borgia, daughter of Pope Alexander VI, also lived in Ferrara. She married when she was thirteen, was divorced at seventeen, was married again at eighteen and widowed at twenty, when her husband was murdered by her brother Cesare, who also did away with his brother Giovanni Borgia, the Duke of Grandia, supposedly with the consent of their father, the pope.

Cesare Borgia was endowed with a handsome face, a strong body (he once decapitated a bull with one stroke of his sword), a good disposition, a gracious manner, and ability to command, an innate resourcefulness, and a ruthlessness that was exceptional even for the Renaissance. He also was endowed with a father who was indulgent as well as powerful; Cesare was made a cardinal at the age of eighteen. When he was twenty-two he gave up his cardinalate in favour of a career in diplomacy. When he was twenty-four he took command of an army that reconquered the Papal States which had come severally under the control of rulers who acknowledged only nominal subordination to the pope. Cesare thus restored the temporal power of the papacy over a considerable part of Italy, even though that might not have been his intention. Pope Alexander had named him Duke of Romagna, the collective name of the reconquered states. Machiavelli had had high hopes that Cesare might be the leader who would one day unite all Italy under his rule. Certainly, Cesare intended to retain some degree of control over the territory. At any rate, in 1503 a new pope, Julius II, who was an enemy of the Borgias, had to demand of Cesare that he turn his conquests over to him. Cesare, ill—from the same poison, it was reported, that killed his father—was unable to do battle; the pope was able to have him arrested; he was imprisoned in Spain for two years; in 1507, then thirty-one years old, he was killed in battle, fighting for the king of Navarre.

In 1502, in his capacity as the pope's commander in chief, Cesare had appointed a new inspector for the building of fortresses. This man was the famous army engineer, architect, physicist, anatomist, painter, Leonardo da Vinci. After ten months of military service, Leonardo returned to Florence, where he painted the "Mona Lisa", the portrait of Elisabetta, the wife of the Florentine nobleman

Francesco del Giocondo. In Florence he encountered Michelangelo, who in turn met Raphael, at the time when Botticelli and Machiavelli also lived in the city.

How extraordinary those cities must have been, and how extraordinary the times! Within the comparatively narrow confines of Florence, atrocities and discord on the one hand and the highest attainments in the arts existed side by side, as they once did in Athens, but nowhere since. The growth of the city began in the eleventh century. In 1125 Florence conquered and destroyed its rival, the mountain fortress Fiesole, and moved the conquered population to Florence.

Dante was born in Florence in 1265; he held several municipal offices and fought for the city's independence from the pope. In 1302 he was banned from the city and *in absentia* was later condemned to death. Florence did not treat its poets better than Athens had treated its philosophers. At this time the city was already the greatest banking centre of Europe. In 1338 the king of England obtained a loan from two Florentine bankers, who lost 1.36 million gold florins in the transaction without going into bankruptcy.

Ten years later the population of this rich and glamorous city was almost completely annihilated. The great plague, which had begun in the valley of the Ganges, reached Constantinople in 1347, raged in Italy, Spain, France, and England in 1348, and in Germany and the Baltic area in 1349 and 1350. The Hanseatic ships carried the pestilence to Bergen and Novgorod. Innumerable families, entire villages, whole areas perished. Many people thought the end of the world had come, and Florence's great son Boccaccio maintains that inside the walls of this city more than 100,000 people died of the plague, "even though before this visitation nobody had thought that so many people lived in the city".

Boccaccio has ten young ladies and gentlemen narrate the one hundred risqué stories of his famous collection of novellas; these young people have escaped into the country to avoid the plague and are now telling each other these stories to pass the time. The author prefaces his book with a description of the plague, which provides an illuminating picture of the Middle Ages:

And so I say that 1,348 years had passed since the redeeming incarnation of the son of God, when the magnificent city of Florence, which in splendour surpasses all other Italian cities, was invaded by the deadly plague; this pestilence, sent to us mortals either under the influence of the heavenly constellations or God's justifiable wrath over our immoral conduct and for the sake of our improvement, advanced slowly but irresistibly from place to place until it spread cruelly all over the Occident. To no

avail were all knowledge and all human precautions: the city was cleansed of much filth under the supervision of appointed officials; sick people were denied entrance into the city; a great deal of advice for the preservation of health was given; and to no avail were the humble prayers . . . Approximately by early spring of the year mentioned, the plague began to show its painful effect in a horrible and astonishing manner.

Neither the skill of a physician nor any known remedy seemed able to cure this illness . . . At any rate, only a very few people were restored to health, while almost all the sick died within three days—some quicker, some more slowly, and most of them without a fever or any visible cause . . . There were many who thought that moderate living and avoiding all excesses might considerably strengthen the resistance against the illness; they formed groups in which they lived apart from all other people; gathering in houses where nobody had been ill, they locked themselves up and enjoyed the tastiest foods and superb wines, but in moderation and cautious of debauchery; they passed the time by playing the lyre and enjoying all the pleasures they could provide for themselves, without allowing anyone from the outside to talk to them, unconcerned with what was happening—with no regard for death or the sick.

Being of a different opinion, some people claimed that the most infallible remedy for such an adversity was to drink plentifully, to enjoy what the moment brought, to roam about singing and joking, to satisfy every desire whenever possible, and to laugh and joke about the unavoidable. By day and night, they went from tavern to tavern, drinking excessively; but more preferably still, they invaded the houses of strangers if they had noticed something inside which they thought would give them pleasure. And that was easy, since everybody had given up not only himself, but also all his belongings, as if his life was forfeited. For this reason, most houses had become common property, and the stranger, once having gained access, dealt with it in much the same way as the owner would have done. But with all their depravity, these people avoided the sick as best they could. And in this devastating visitation of our city, faithful observation of the laws—those of God as well as those of man—was completely forgotten and nonexistent.

And then there were many people who travelled a middle road—enjoying everything and according to their whims, not absenting themselves, but going about; some carried flowers in their hands, others had fragrant herbs or various spices, which they frequently held to their noses because they thought it advisable to refresh their brains with such fragrances, since the

air around had become stale and foul-smelling from the stench of the corpses, the disease, and the medicinal remedies.

And even though these people with their differing opinions did not all die, not very many of them remained completely unscathed; it must be admitted that many of each group fell ill, and those having set a bad example when they were still healthy, now perished sadly and forsaken by those with whom illness had not yet caught up . . . This visitation had stirred up such a horror in people, that brother fled from brother, and often the wife left her husband; and, incredible as it may seem, fathers and mothers were reluctant to look after their children and to nurse them. For this reason, the numerous people who became ill had no other recourse than to the sympathy of their friends—and that was rare—or the avarice of the attendants who, being inveigled into doing the job by a very high and disproportionate remuneration, took care of the afflicted. Even though, not too many could be found for this work, and those who were willing to perform it—men and women alike—were crude and often inexperienced in attending the sick, so that their services actually were limited to bringing the patients what they requested or watching them die.

And there were many who by day or at night died in the streets, and neighbours only knew about the deaths of those who had died in their houses by the stench of the decaying bodies.

The author has Pampinea, who speaks for the young ladies, make these observations:

"When we step out of this church, we watch the corpses and sick people being carried about, or we see those who, on account of their crimes, previously had been banned by the laws, now defiantly roaming the streets as if in mockery of the laws whose executors they knew to be ill or dead, or we see the scum of Florence, excited by our blood, much to our distress roaming the streets and riding all over the city in the guise of undertakers' helpers, reproaching us for our distress by singing infamous songs."

The plague did not strike everywhere as horribly, but time and again it scourged Europe, especially the cities. Descriptions of its widespread ravages have been given by many other writers through the centuries, from Thucydides' eye-witness report to Manzoni's and Defoe's fictional accounts—of, respectively, the plague of 1661 in Milan and that of 1665 in London—to Albert Camus's contemporary novel *The Plague*. Even the bombs that fell on Hiroshima

did not kill as many people as the bacilli had done in hundreds of cities, and no world war was ever as murderous as the plague.

However, Florence became populated again. Boccaccio was so proud of his city, even when it was all but deserted, that he spoke in derogatory terms of other cities; "Rome, which, as much as it once was the head of the world, has now become its tail," he wrote. In 1406 the Florentines conquered Pisa. Toward the end of the fifteenth century, under the rule of the rich banking family of the Medici, Florence was the intellectual and, especially, the artistic centre of the Occident and had become once more one of the richest cities in the world.

Everywhere in Europe, high prices were paid for damask and gold brocades from Florence. Goldsmiths, jewellers, and wood carvers were summoned to Rome and to the courts of European kings. The versatile Florentine genius Benvenuto Cellini worked as a goldsmith for popes, kings, and emperors; he also was a sculptor, musician, a precursor of Casanova, and, like him, a brilliant writer.

Primarily, however, Florence was the great school of painters, maybe the greatest ever. About 1500 the men of genius in the Occident all gathered at the same time in the same place—as once the dramatists and the philosophers did in Athens, and as later the musicians were to do in Vienna. Leonardo da Vinci spent his years of apprenticeship in Florence, as did Michelangelo twenty-one years later. In 1501 the two men met there, and in 1504 they received a joint commission: each one to paint one of the walls of the Hall of the Five Hundred, in the Palazzo Vecchio. To the people of Florence, this was a thrilling contest. The fifty-two-year-old Leonardo, at the height of his creative powers and his fame, with long curly hair and an impressive beard, habitually dressed in a pink silk jacket that reached to his knees, always surrounded by devoted pupils and numerous admirers; and the twenty-nine-year-old Michelangelo, whose monumental "David" the city just recently had put on display, an untamed genius, a grumpy, badly groomed, almost ugly man, whose nose had been bashed in when he was a child—these two men were now, as rivals, to display their art in the same hall. Their previous meetings had not been exactly amiable; the "favourite of the gods" and the "man possessed" remained strangers to each other. But the contest never came off. Both painters quit the work before it was well begun. Leonardo went to Milan, Michelangelo accepted an invitation to Rome. Before leaving Florence, Michelangelo was visited by a young man named Raphael, who remained in the city for the next four years.

The Florentines were keenly aware of the fact that extraordinary things were happening within their walls; they enjoyed it greatly, and it nourished their pride. Contemporary gossip claimed that they

had "sharp eyes and malicious tongues". They were an intelligent, cosmopolitan group of people with detached minds and an inclination toward cynical and defamatory talk. Even the children of the poor learned to read; many merchants spoke Latin and Greek, and it is said that the donkey drivers sang Dante's *canzoni* in the streets. But Florentines were not much concerned with morality, either in politics (if their Machiavelli is at all representative) or in private affairs; at any rate, the love life as described by Boccaccio may seem somewhat amazing to us, and even more so the fact that the writer had no compunctions about putting these stories into the mouths of young ladies. Boccaccio himself was the illegitimate son of a Florentine merchant, Leonardo of a Florentine notary.

Three members of the Medici family in Florence were murdered; one of the assassins was Lorenzino Medici, a relative of his victim. Lorenzino is reported to have wilfully mutilated antique statues in Rome, and to have committed the murder of Duke Alessandro of Florence in 1537 for the singular purpose of increasing his own fame. The Renaissance, the revival of classic antiquity, flourished in Florence to the extent of imitating deeds like those committed by Herostratos who for the sake of his own thirst for glory set fire to the great temple at Ephesus.

If Florence was, as it has been described, "the city of incessant movement", Venice, during the Renaissance, was a city of apparent stagnation and political secrecy.

The Veneti, an ancient people who in the early days allied themselves with the Romans, fled in A.D. 452 from the onrushing equestrian hordes of Attila, taking refuge on a group of 118 small islands situated two and a half miles off the mainland in a lagoon. In 697, when a small city had grown on these little islands, the Byzantine governor, who was called the Doge, took up residence on the central island, the Rialto. Venice's dependency upon Constantinople lessened toward the end of the first millennium; the city declared itself a republic and chose the evangelist Saint Mark as patron saint. His remains are said to have been transferred to Venice at some time during the ninth century. A winged lion became the symbol of Saint Mark and his city.

During the twelfth century the Venetians erected their Lion of St. Mark all along the coast of Dalmatia, Asia Minor, Syria, and Egypt, wherever their fleet succeeded in establishing bases for their trade. Constantinople, once the master of Venice and now, together with Genoa, the important commercial rival, was plundered by the Crusaders in 1204—at the instigation of Venice. That accomplished, Venice secured for itself commercial privileges in Constantinople and thus promoted its rise to a great power, consisting, like Carthage, of a single city and its fleet. The Venetian coin, the ducat, took the

place of the Byzantine solidus as leading international tender. The architectural style of St. Mark's Cathedral, with its five cupolas, brings to mind the fact that Venice had once been a Byzantine colony and that it owed its development to its trading with Constantinople, the richest and most magnificent city of Europe. Petrarch wrote in 1367 that "Venice, by virtue of the intelligence of its citizens and due to its location is in a happier and more peaceful condition than any other city on earth".

In 1380 the Venetians defeated the Genoese in a sea battle off Chioggia, practically within sight of the Cathedral of St. Mark, and with this victory, which ended almost hundred years of warfare, they finally gained supremacy in the Mediterranean realm and predominance in Italy. It was only then that the city-state reached out for the Italian mainland; early in the fifteenth century, Verona, Padua, Ravenna and, as the western cornerstone, the city of Bergamo more than 125 miles away, were subjugated. All these cities were forced to conduct their entire trade via Venice. Spices and luxury goods from India were shipped from Constantinople or Alexandria to Venice, and from there to central or western Europe. Venice had the trade monopoly of Levantine cotton. The largest trade route led from Venice via Augsburg to Bruges. Traders and bankers gathered on the Rialto to conduct their business. The wealth of all countries was assembled in warehouses and shops. At the beginning of the sixteenth century the city, with its 150,000 inhabitants, was the most important harbour on earth. And, with its canals, gondolas, and palaces, it was considered the most beautiful city in the world. Giorgione and Titian, Tintoretto and Veronese lived in Venice, decorated the palaces with frescoes, and painted the churches.

As a state, Venice was very much hated in Italy, especially during its greatest era. Because of its comparative invulnerability to invasion, Venice was able to remain aloof from the intrigues and ruinous contention that occupied the rest of Italy; in its conduct of foreign affairs it concluded agreements and contracted alliances to serve long-range policies rather than to achieve a momentary advantage. The same cool purposefulness was apparent also in the internal affairs of Venice; and there, too, the result was power. Even the Venetians themselves trembled at times before the power of the ruling class, the nobility, whose executive instrument the Doge was. Spying and denunciation were the government's favourite means of wielding power. The gondoliers, of course, did not sing of that.

Venice's rôle as a world harbour was terminated by two peoples, the Turks and the Portuguese. In the fifteenth century the Turks robbed Venice of the island of Euboea and most of the commercial colonies around the eastern Mediterranean, and in 1571 they took

Cyprus from her. The Portuguese discovered the sea route to India in 1498 and thus initiated a new era of world trade, which for two and a half millenniums had centred in the Mediterranean; they carried the trade across the oceans, around the globe. But they destroyed the wealth of those cosmopolitan cities that had prospered by ferrying the caravans carrying silks, spices, and pearls from the Orient to the Mediterranean and from there to Europe—cities such as Baghdad, Alexandria, and Venice. Even without warfare, the rise of one city is often related to the decline of others.

But the countenance of the Venice of the time of its cosmopolitan stature is essentially still retained. While in Babylon, Athens, and Rome only ruins are left to tell of past glory, Venice and Florence have most clearly preserved in stone what men are capable of when they unite in a city in which splendour, genius, and power are combined.

Chapter 5

THE DEATH OF LISBON

FOR SCIENCE and the arts, the modern era began in the cities of northern Italy; for world commerce and high politics, it began in a few cities of Portugal and Spain. With a few daring expeditions, the seafarers of these two countries tore the curtain from far reaches of the world and took possession of oceans and entire continents. All at once, the Mediterranean became a minor theatre, and its metropolitan cities were suddenly located in the "provinces". The new cosmopolitan cities were Lisbon, Seville, and Madrid.

Together with Córdoba and Granada, Seville, which had been founded by the Phoenicians, was among those Spanish cities that enjoyed a brilliant period of architecture, art, and science under Arab sovereignty from the eighth to the twelfth century, while the Christian Occident, just emerging from the chaos of the early Middle Ages, was slowly steering toward the first modern city cultures. The Arabs were driven from Seville in 1248 (from Granada only in 1492), and the great harbour by the Guadalquivir river was, next to the imperial and episcopal city of Toledo, the most important place in the kingdom of Castile.

Seville had its great time in 1509, when it shared with nearby Cádiz the monopoly of trade with the New World. In deference to Columbus' objective when he made his historic voyage, or in the mistaken belief that he had achieved it, the name "India" remained attached to the Spanish colonies in America for quite some time, and thus "India" was made part of the arch-diocese of Seville. With the treasures flowing from the New World to Seville, the cathedral was finished in 1517, one of the largest churches of Christendom. Columbus was buried in this cathedral.

In 1519 the Portuguese Magellan, who was in the service of Spain, left from Seville's harbour, Sanlúcar, on his voyage around the world; on September 8, 1522, the remaining one of his five ships, the *Victoria*, returned to Seville after having circled the earth. Thus Seville was instrumental in proving that the earth is round.

The beauty of the city, where Islamic and Christian culture and the wealth of Spain and the Americas are still visibly interwoven, is praised in the Spanish verse: "Who has not seen Seville, has missed a miracle."

It seems strange that Philip II of Spain should pick the little town of Madrid when he was searching for a permanent seat of government. Philip did not choose the rich city of Burgos; he did not favour Salamanca, whose university, founded in 1222, was, next to Bologna, the most outstanding in Europe; nor did he like the former residence, Valladolid. No, indeed, a small town on the barren high plains of Castile, where many Arabs were still living, Madjerit, or Madrid, was to become his capital. True, Charles V had stayed there from time to time, but only because the climate agreed with him, and without the least intention of building a capital there.

The Iberian peninsula.

Disregarding the opposition of the entire court, Philip ordered the move into the new metropolis of the Spanish world empire to take place in 1561. It was a metropolis which owed its existence to the obdurate decision of a lonely man. Why he decided on Madrid never became quite clear. Its only obvious advantage is the city's location exactly in the centre of the country.

When in 1580 Portugal, with its world empire in South Asia and Brazil, was inherited by Philip II, so great a part of the world was ruled from Madrid as had never before been dominated by a single city. But already in 1588, England, the new maritime power, destroyed the Spanish Armada, and the English as well as the

Dutch tore more and more parts away from the Spanish-Portuguese empire.

How quickly the narrow measure of the Italian city-states gave way to global concepts is indicated by an amazing occurrence in 1494 in the monastery of Tordesillas, near the Spanish imperial city of Valladolid. Spain and Portugal divided the world between themselves, even before they had actually discovered it. They signed a contract according to which the earth was to be Portuguese east of a line coinciding with longitude 46 degrees west, and west of that line it was to be Spanish. The contract was based on a judgment by which Pope Alexander VI tried to end the dispute between the two great seafaring nations. The dividing line granted the Portuguese only the eastern tip of all America, that is about one-fifth of today's Brazil.

Since they were thus practically excluded from the newly discovered New World, the Portuguese set out to find a different route to India by sailing around Africa, and they found it in 1498—in fact, they found the real India, the land of spices and precious stones. It was the sea route to India, not the discovery of the New World, that thrilled the Occidental world. The India trade, already the most lucrative branch of commerce at the time when Babylon was at its peak, could abandon the cumbersome caravan routes to the Mediterranean and would centre in Lisbon.

In our day, when spices are in plentiful supply, it is difficult to imagine the importance of India's pepper, cinnamon, nutmeg, and ginger. A small box of spices was quite adequate for a gift to an honoured guest of the city. The use of Indian ingredients in large, even in extravagant, quantities was, because of their high cost, considered a mark of distinction for a rich man's kitchen. Within a few years, the Portuguese capital grew into the largest harbour and trading centre on earth (even larger than Antwerp and, later on, Amsterdam). Its eminence was not even diminished by the earthquake that occurred in 1531. The Portuguese dominated the coasts of Brazil, Africa and India; they settled on Ceylon, on the Moluccas (between Celebes and New Guinea) and as early as 1557 in China. Even though the greater volume of the India trade had long since shifted to England and the Portuguese colonial empire had become confined to Brazil and southern Africa, Lisbon still had kept its place as one of the largest and most affluent cities in Europe.

And then, on November 1, 1775, the earth trembled, a tidal wave rushed up the river Tagus, and the collapsing houses of the world-famous city buried thousands of people; estimates of the dead vary from 10,000 to 60,000.

The earth trembled from Scotland to Asia Minor. Casanova in

his prison in Venice was struck by the sudden hopeful thought that the Doge's palace might collapse and he could emerge from the "lead chambers" as a free man; his horrified guards heard him cry out, "One more tremor, one more, great God. But a stronger one!"

There have been more terrible earthquakes, but never again one that shook Europe to such a degree. It is bad enough when nature destroys a city, man's protest, expressed in stone structures, against nature—an edifice of human insolence—but in this instance, two-thirds of one of the civilized world's most famous cities were laid in ruins, and this at a time when the surging creative energies of the Occidental world were rooted in the belief that human rationality and optimism could rule the earth. Rousseau, on the other hand, five years earlier, had published his *Discours sur les arts et les sciences*, in which he declared for the primitive state of man, untouched by culture. His contemporaries coined the phrase "Back to Nature"; and this now was Nature in action.

Voltaire, then sixty-one years old, turned completely pessimistic under the impact of the earthquake. In his poem "Le désastre de Lisbonne" he lamented the corruption of the world; and in the novel *Candide* he had his hero live through the catastrophe for the express purpose of ridiculing the philosopher Leibniz. While Candide lies bruised and bleeding in the ruins of Lisbon, his teacher Pangloss, with raised forefinger, proclaims to him the doctrine of Leibniz that "our world is the best of all possible worlds". Schopenhauer, some seventy years later, pointed with grim satisfaction at Lisbon's destruction as he expounded the view that optimism could be reconciled neither with rationality nor with Christianity.

CITIES DESTROYED BY EARTHQUAKES

Year	City	Estimated dead
526	Antioch	150,000
1531	Lisbon	30,000
1662	Peking	300,000
1730	Peking	100,000
1730	Tokyo	137,000
1737	Calcutta	300,000
1755	Lisbon	30,000
1773	Antigua (Guatemala)	20,000
1797	Quito (Ecuador)	40,000
1906	San Francisco	500
1908	Messina	80,000
1923	Tokyo	60,000
1960	Agadir	12,000
1960	Concepción (Chile)	?

The heaviest earthquakes in modern times occured in 1556 in the Chinese province Shensi (800,000 presumed dead) and in 1950 in the Indian federal state of Assam (from which no figures are available).

The eruptions of volcanoes in historical times were less disastrous: the eruption of Vesuvius in A.D. 79 destroyed Pompeii and Herculaneum (approximately 4,000 dead). In 1883 the explosion of the island Krakatoa near Java caused 30,000 deaths. The largest city ever destroyed by a volcano was St. Pierre, on the French island of Martinique, whose 26,000 inhabitants were killed in 1902 when Mount Pelée erupted.

The city, which is particularly vulnerable to pestilence, fire, and the hazards of war, is also especially and peculiarly vulnerable to earthquakes. The other calamities seem less inexorable and better defined; but in the city an earthquake is beyond palliation, and it spawns a host of incidental afflictions: the collapse of buildings, whose inhabitants are buried alive; fire, which often follows the falling of houses and the upsetting of their stoves and ovens; panic, which turns an orderly community into a fear-crazed, suicidal swarm; starvation, which results from the destruction of food supplies; and finally disease, which completes the work of devastation.

When one considers that the earth is merely a ball of molten metal covered by a pitifully thin crust kept rigid by constant rotation, one may well wonder why the crust does not tremble more frequently and more vehemently; and one may wonder, too, why man continues to build cities on top of this thinly covered inferno— indeed, to build them as if for eternity. But normally one does not think much about such things, and it is probably as well. After all, Lisbon was in time restored; and at least one "city" has endured for 4,500 years—the Pyramids, which were ancient Memphis' City of the Dead.

One can imagine that the surviving inhabitants of a metropolis might conclude, after experiencing an earthquake, that living in cities, or at least in cities where earthquakes might occur, is dangerous, and that they should leave such areas. Such a move was made by the people of Antigua, capital of Guatemala and one of the most beautiful colonial cities in America. When, in 1773, Antigua was destroyed by a small tug of the earth's crust, the survivors moved out and built a new capital elsewhere—the city of Guatemala. Antigua is now a miserable little town; its only distinctions are the ruins of magnificent churches and monasteries of former times. But Antigua is the exception. Lisbon was destroyed by two earthquakes, Peking was destroyed twice, and so was Tokyo, but nobody ever

thought of a better solution than to rebuild the cities in their old locations. One can, if one will, see this as delusion and narrow-mindedness, but one can also see it as that grandiose defiance which probably always is godfather to cities and their cultures.

PART FIVE

THE GREAT REVOLUTIONS
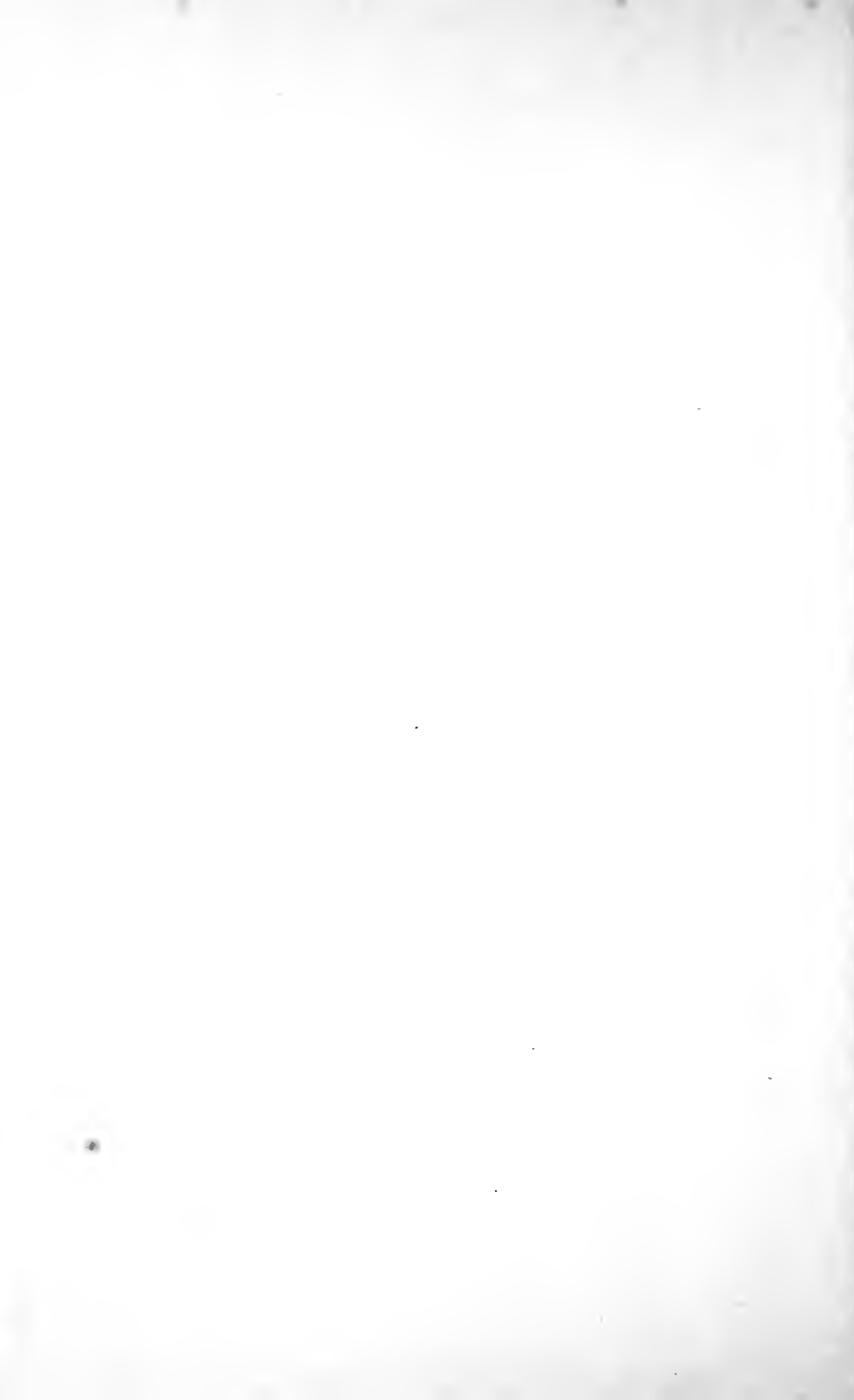
Chapter 1

BABYLON ON THE SEINE

No OTHER of today's cosmopolitan cities has maintained its rank for as long a time as Paris. And even though Paris, unlike Babylon and Rome, never was the largest city on earth, it is one of the five or six cities that have shaped the world. Even in our day, its attractiveness does not seem to have weakened; people from the provinces and tourists from every corner of the world still stream into the great metropolis, and its charm triumphs over the decrepitude of many of its magnificent buildings which time has covered with a dark-grey patina.

There is hardly anything more gloomy on earth than the boxlike Cyclopean structure of the Louvre on a November day, and nothing more unattractive than some of the residential sections in the eastern part of the city or in some of the suburbs. There is, on the other hand, nothing more enchanting than a stroll along the Seine in spring, and scarcely anything more impressive than the Champs Élysées. And if for some reason someone should really not like Paris, he still must be impressed by the acclaim of those who love it; and if anyone should see Paris merely as a city grey with age, he most probably failed to start the day with an apéritif or a glass of claret.

The ancient Gallic town of Lutetia on that small island in the Seine where, since the twelfth century, the Cathedral of Notre Dame has been reaching toward the sky, did not belong among the important cities of France until far into the Middle Ages. Lyons was the great Roman city in Gaul; Toulouse, with more than 100,000 inhabitants, was the capital of the empire of the Visigoths in the fifth century; Laon was the last residence of the Carolingians; Orléans was the centre of the West Frankish empire during the tenth and eleventh centuries; and Avignon was the seat of the popes during the fourteenth century.

In the third century the Roman city of Paris was set upon by the Germanic tribes, who plundered almost all the Gallic cities. Nevertheless, the future Roman Emperor Julian (the Apostate) chose Paris as his residence when he was "Caesar of Gaul" from 355 to 360—probably because of its convenient location on the Seine, which at that time was already being used for shipping. Moreover,

Paris was also strategically in an opportune location in regard to Britain and Germany. Julian also lauded the moderate climate of Paris and the clear water of the river.

Not until the eleventh century did the city spread from the Ile de la Cité—the river island not quite one mile long—over to the mainland, to which it had extended in Roman times. Paris was not the only cosmopolitan city which grew out of an island community. Berlin grew out of the small town Kölln on one of the islands in the

Important cities of medieval France.

river Spree. The old part of the city of Stockholm is situated on three islands in Lake Mälaren. The island Ortygia was the nucleus of the ancient city of Syracuse. There were famous island fortresses such as Tyre, the mother city of Carthage, and in the late Middle Ages Stralsund. St. Petersburg was built on a group of islands in the estuary of the Neva. And to the present day Venice has remained on its islands. An island location not only provides protection against possible enemies, but also attracts commercial navigation.

Paris, which was the capital of France from 987, already had its

critics in early times. Petrarch visited the city first in 1333, and again in 1367, when the Hundred Years' War between France and England was already in its thirtieth year. Back in Venice after this journey, he wrote:

> Paris actually never really lived up to its reputation, much of which it owes to the exaggerations of its inhabitants. But there is no doubt that it was something great once ... The shouting and the hustling of people in the streets is no more; the walls reverberate, the woods are silent.

Despite this Italianate view, about 1500, when merely 35,000 people lived in Cologne, Paris had 300,000 inhabitants and was the largest city in Europe, ahead even of London and Naples.

During the seventy-two years of Louis XIV's reign (1643 to 1715), Paris became the paramount cultural and social centre not only of France, but of Europe and possibly of the world, even though the city of London was growing rapidly and with its 650,000 inhabitants in 1700 had surpassed the French capital in size, and in spite of the fact that in 1682 Louis XIV had moved the royal residence from Paris to the palace city of Versailles. (It is said that the Sun King disliked Paris, then a city of narrow dirty lanes, as much as he loathed the Parisian palace the Louvre, which according to established custom was open to the public at special times, on which occasions the gaping and staring visitors not infrequently relieved themselves in the dark halls and stairways.)

Under Louis XIV, France became the strongest power in Europe and North America; it extended its eastern frontier to the Rhine and enlarged its colonial empire in India, in Canada, and in the south central part of what is now the United States. But even beyond the range of French weapons, the language, the culture, and the customs of France were being advanced. The most renowned philosophers of their time were Descartes and Pascal; the most famous dramatists were Corneille, Racine, and Molière. They all were productive in their fields during the reign of Louis XIV, and, with the exception of Descartes, they all lived in the capital. Frederick the Great used the language of Paris, which became the language of educated people all over Europe in the same way Greek had been in the Roman empire, and Latin during the Middle Ages. In Russia, French remained the language of the well-bred until the First World War, in many Balkan countries even until the Second. In many parts of the Near East and of South America it still is.

It was in Paris in the eighteenth century that the ideological foundations of modern democracy, of the national state, and of tolerance were laid. These foundations not only facilitated the

advance of the technical era, but also directly inspired the emancipation of the serfs, the abolition of torture, and the introduction of universal conscription. They still have a tremendous influence on our own thinking.

The philosophy of the Enlightenment, which had originated in Holland and England, found in Paris its most famous representatives in Rousseau and Voltaire. Paris became one of those rare prominent cities that Oswald Spengler called "the outstanding symbol and reservoir of the completely emancipated mind". Out of the Enlightenment evolved the two great French revolutions which, in conjunction with the English and Russian revolutions, have shaped our century.

It may be justifiable to look upon the initiation of the era of air travel as the first French revolution. In 1783 the first manned aircraft, Pilâtre de Rozier's balloon, rose from the Bois de Boulogne outside the gates of Paris and hovered at a height of almost 3,280 feet over the dome of the Invalides. Above the rooftops of Paris, accompanied by the shouts of a tremendous crowd, with everybody craning his neck in order not to miss anything, the age-old dream of man, to fly, finally became reality.

It was not merely accidental that man's ascent into the air was initiated in the eighteenth century, and in Paris. The first passenger-carrying balloon was a linen bag lined with paper and covered with a net of hemp; hanging from it, above the gondola, was a pan in which an open straw fire was kept burning, to keep the air within the bag warmer, and therefore lighter and more buoyant than the outer air. The equipment was within the means of ancient man, and the principles of buoyancy were known for a long time. But neither the man of antiquity nor the man of medieval Europe could have conceived the idea of rising into the air, because they lacked, most of all, the confidence that they were not trespassing in the domain of the gods who would strike them down for their presumptiousness. And to have this confidence it was necessary either to revise the old concepts of gods or to be willing to challenge them. In the Europe, and especially in the Paris, of the eighteenth century at least one, and in some cases both, of these conditions had been met.

And it was not only the heavenly ruler whom the French were willing to challenge, but also the rulers on earth. In the course of their second revolution, they deposed the king and finally executed him. This explosion was inevitable. There were the extraordinary privileges of the nobility and the king's household—a "Byzantinism" in the worst sense of the word—and there was the demand, created by the immensely popular philosopher Rousseau, for the restoration of "natural equality" among human beings. One only

has to read a novel like *Manon Lescaut* to realize how explosive this demand was. The Chevalier des Grieux, whose frenzied love the Abbé Prévost described in 1731, "revels all through the night at a hostelry" immediately after having shot a prison guard. In the author's opinion, this behaviour by no means expresses a criminal lack of compassion, it simply highlights the fact that the murderer is "a man of rank", which the murdered man is not, and nobody thought that the chevalier had done anything dishonourable. Nowadays, the societies for the protection of animals are fighting for more numerous rights for dogs than were granted to human beings in the eighteenth century.

On July 14, 1789, the people rose against the inequality of human beings. The revolutionaries stormed the Bastille, killed the prison guard (this time in the name of equality, which made the case different from that of the Chevalier des Grieux), eradicated the privileges of nobility and clergy, and on August 27 proclaimed the "Rights of Man". However, the Republic was not proclaimed until 1792. Louis XIV was executed on January 21, 1793, and Danton and, following him, Robespierre established a reign of terror. The radical Jacobins interpreted equality of rights to include equality of possessions; in fact, they even went so far as to suggest tearing down the towers of Paris because they violated the concept of equality among buildings. Saint-Just, the twenty-six-year-old revolutionary, recommended that all children be taken from their parents and be educated by the state in order to avoid watering down equality through the influences of their home environment. Another group of Jacobins demanded that all French citizens wear the same uniform.

And anyone who was against these measures, or who was rich or of noble birth—in fact, anyone who was against the momentarily most powerful faction—was condemned to death by the revolutionary tribunal and usually executed the same day. The same happened to those who fell victim to the spying of the janitor or the servants, who were well rewarded by the state. The condemned were carted off to the Place de la Révolution (now the Place de la Concorde), where the guillotine was erected. As the gaping crowds surrounded the bloody instrument of death, one victim after another was strapped on to a plank by the executioner, and the blade crashed down. Human rights were baptized in a stream of blood, and all Europe trembled with the people of Paris.

Under Napoleon, Paris became the political and military centre of Europe. For a time France extended from Madrid to Moscow. The cultural rank of its capital could not even be reduced by the downfall of the Emperor nor by France's collapse.

Balzac tried to depict the life of his era in the fifty-five volumes

of his *Human Comedy*, which is a monument in honour of Paris even when he rains abuse upon the city, as when he quotes the cynic Vautrin in *Le Père Goriot*:

> Those who soil themselves in carriages are highly respectable people; but those who soil themselves on foot are rogues. Do you know how one makes one's way here? Either by a dazzling display of genius or by the skilful use of corruption. One has to crash into this mass of people like a cannon ball or one must sneak in like the plague. In Paris one is considered a man of honour if one keeps one's mouth shut without taking a bribe. While the aristocrats of the other European capitals refuse to accept an ordinary millionaire in their midst, Paris opens its arms in welcome, one rushes to his feasts, eats his dinners, and drinks a toast to him.

Even Heinrich Heine, the German poet, who lived in Paris until his death in 1856 and considered Paris his second, his real home, by no means sang only hymns of praise for the beloved city. Here is how this most acrimonious scoffer among German writers describes social conditions in Paris in 1832:

> Near the Porte St.-Martin was a deathly-pale man on the damp pavement, struggling for breath; staring bystanders said that he was dying of hunger. My companion reassured me, however, that this very same man died every day on another pavement in a different street—in fact, that this was his way of earning a living; the Carlists were paying him for this performance in order to arouse the people against the government. It would seem, however, that the pay for this work is pretty poor, since many of these people actually do die of hunger. It is a strange thing, this dying of hunger. One might well see thousands of people in this state every day, if they could only endure it a bit longer. As it is, they usually last only three days without food, then the poor wretches die one after another—and one hardly notices them.

Friedrich Hebbel, the German poet who was often near starvation himself, had a different reaction to Paris in 1843:

> Even now, and in spite of the great darkness which envelops my soul, I am well aware of what it means to live in this city. One feels not only carried, but actually lifted up by the resilient ground one treads. It is very strange indeed.

In 1846 Paris had more than a million inhabitants, the third

European city of that size, following ancient Rome and modern London. In 1853 Napoleon III, a nephew of the great Emperor, commissioned the prefect of the Department of the Seine, Baron Haussmann, to cut a series of large boulevards straight through the maze of streets and lanes of the inner city. It is an open secret that the despotic ruler intended to clear a line of fire for the cannons of his army directly across the sections of the city where the restive working people lived. But this probably was only a secondary motive correlated with the old dictatorial predilection for wide, straight streets that imperiously and often brutally transecting a
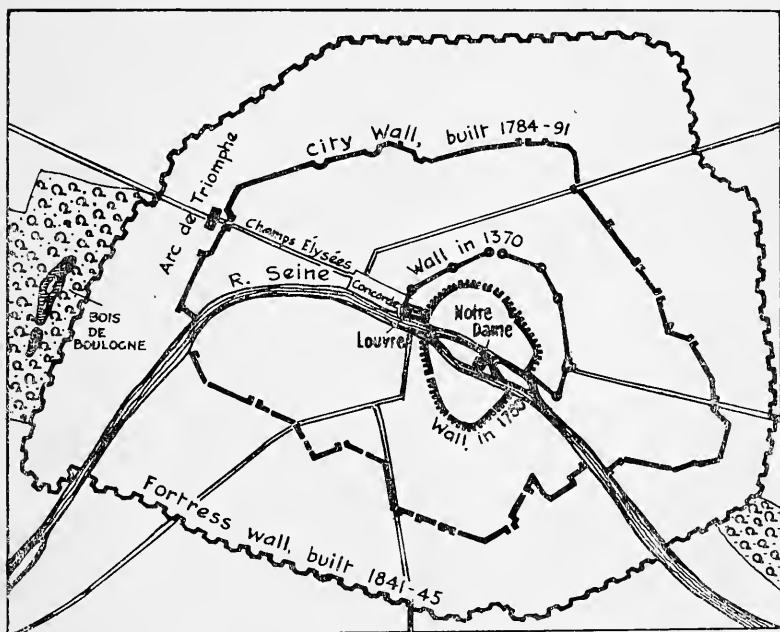
The walls of Paris.

city, symbolize royal power—triumph of a masterful mind. It is the pattern according to which Sennacherib built in Nineveh, Nebuchadnezzar in Babylon, Alexander the Great in Alexandria, Kublai Khan in Peking, Peter the Great in St. Petersburg, Stalin in Moscow, and Kubitschek in Brasília; thus also did Louis XIV and the two Napoleons build in Paris.

And for a city, this is probably the right combination, grand boulevards and narrow lanes, to allow intellect and soul, strong will and petty whim, to intermingle. Haussmann's sixty-two miles of avenues and boulevards were by no means a disadvantage to

Paris. On the contrary, anyone who has known Paris and Berlin, or Washington and Buenos Aires, certainly would have missed their sweeping lines and open spaces in ancient Athens and Rome.

Haussmann gave its present form to the Avenue des Champs Élysées, one of the most famous boulevards on earth. From the Arc de Triomphe—which, by the way, somehow reminds us of the arrogant bulkiness of the Tower of Babel—the Avenue des Champs Élysées extends in a bold and mighty sweep to the Place de la Concorde, whence it continues as a wide promenade through the Tuileries to the Louvre. If one stands in the Place Clemenceau, which is approximately the halfway mark and looks not only upon the two monumental structures at the farthest points of the avenue, but also toward the Boulevard Alexandre III with the Invalides, one enjoys one of the most impressive views that man has created in the world that is his very own—in a city.

The Champs Élysées, even beyond the stretch that passes through park grounds, is lined with trees; it is a green street, an impressive work of man's ingenuity built with deliberate inclusion of nature in the form of trees and lawns. The ancient cities, by contrast, usually excluded everything that grew naturally, and this is true even now of many Oriental cities. One might be tempted to call this the logic of city building: man does not care to see anything save what he himself has created. It appears most strikingly in St. Peter's Square in Rome. Never has a great promenade been as fully conceived as in Babylon, where the hollow space which is called street was not created by the adjoining buildings, but was actually and deliberately built as an "empty space"—with the help of those blue glazed walls, upon which the yellow lions shimmered.

FAMOUS AVENUES IN OUR TIME

City	Street	Widest part
Buenos Aires	Avenida Nueve de Julio	460 ft.
Paris	Avenue Foch	460 ft.
Lisbon	Avenida da Liberdade	295 ft.
Düsseldorf	Königsallee	291 ft.
Brussels	Boulevard du Régent	262 ft.
Paris	Avenue des Champs Élysées	230 ft.
Berlin	Unter den Linden	200 ft.
Vienna	Ring	187 ft.
Washington	Pennsylvania Avenue	160 ft.
New York	Broadway	152 ft.
Leningrad	Prospekt of October 25th	115 ft.
(St. Petersburg)	(Nevsky-Prospect	

The north-south axis of Brasília is 1,150 ft. wide.

IN FORMER DAYS

Alexandria	Racecourse	100 ft.
Babylon	Processional street	76 ft.

Today there are many streets and squares with sparse greenery or green borders: Red Square in Moscow, Pariser Platz in Berlin, Heldenplatz in Vienna, Trafalgar Square in London; there are also boulevards with a great many trees: the Ring in Vienna, Königsallee in Düsseldorf, Avenida Nueve de Julio in Buenos Aires, or that once so magnificent promenade in Berlin that was named for its trees, Unter den Linden. As a matter of fact, one of the most beautiful city streets on earth is not hemmed in by any masonry whatsoever: the Strasse des 17 Juni (formerly the Charlotten-burger Chausee), in Berlin, which leads from the Brandenburg Gate through the Tiergarten to the Grosser Stern (Great Star) with the Siegessäule (Victory Column).

In 1870 Berlin and Paris fought each other for the hegemony of Europe. During the winter of 1870–71 the Germans laid siege to the French capital, and the devout Johanna von Bismarck from East Pomerania wrote to her husband, who later was to become Chancellor of the German Empire, at his military camp before the gates of Paris that she hoped this "Babel" would very soon be taken under fire.

But even its defeat did not diminish the city's standing in the world. In 1889, in honour of the Universal Exposition, the city erected the Eiffel Tower, an expression of its strength and cosmopolitan pride. The Eiffel Tower, with its height of approximately 1,000 feet, was then by far the tallest structure on earth, a tower which, unlike the towers of Babylon and Alexandria, did not even pretend to have a practical purpose.

Between the two world wars Paris's cultural rank was highlighted by the fact that American literature was more at home in Paris than in America. Ernest Hemingway, then a young man, developed his style in Paris under the influence of Gertrude Stein and Ezra Pound; Henry Miller and F. Scott Fitzgerald spent a number of years in the city by the Seine; John Dos Passos and Thomas Wolfe received significant and decisive impressions in Paris. In their own, more robust country they felt isolated and not quite accepted; in Paris, where spiritual values still are regarded more highly than money, these writers felt at home.

And Paris emerged from both world wars unscathed in its fame and magnitude; in fact, Parisian fashions, Parisian chic were hardly ever more highly valued than they are nowadays. Paris has continued to grow in recent decades, while at the same time the population of France has decreased and the next-largest cities, Marseilles and Lyons, now have fewer inhabitants than they had in 1939. Paris, already called a "harassed old man" in 1857 by its great poet Baudelaire, grows each year by about 100,000 people.

To be sure, one will not be able to detect this growth by limiting

oneself to the official city area, which has essentially the boundaries established by the fortress walls of 1841. For several decades now, the population inside these city limits has remained a steady 2.9 million. Frequently, the Department of the Seine, with 5.6 million inhabitants, which encircles Paris, is considered as Greater Paris. But even this is an artificial and much too narrow limit set for administrative purposes.
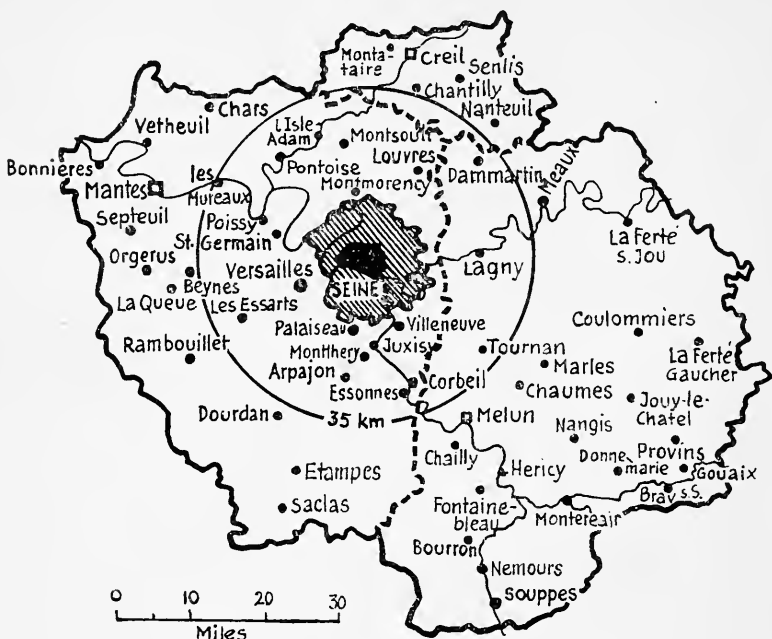
The Region of Paris.

In 1932 it was already decided to designate an area within a radius of 22 miles around Notre Dame Cathedral as *Région Parisienne*. But even this area of 44 miles diameter no longer contains the multitude of houses of Paris. By a law in 1943 the city limits were to include the Departments of the Seine, Seine-et-Oise, and Seine-et-Marne, and part of the Department of the Oise. The largest diameter of this area is more than 102 miles, the population figure is 8.5 million. *That* is Paris.

As we see, even the distribution of France's population makes it obvious what France actually is: a city-state such as Rome once was.

In antiquity, the country would not have been named France, but Paris. If the capital is by far the largest city of a country, as Moscow, Stockholm, Brussels, modern Athens, and—between the two world wars—Berlin, then the combination of commercial and cultural energies with political power and bureaucracy will give the city a strong ascendancy. And if, further, one-sixth or one-fifth, or even a greater percentage of the inhabitants of the country crowd together in the capital, one may well be justified in talking about a city-state. If this is rarely done nowadays, the reason may very well be that in an era of equality the cities no longer have an easy conscience about their pride and their grand ambitions.

CITY-STATES IN OUR TIME
(of more than 2 million inhabitants)

Country	Million inhabitants	Largest City	Million inhabitants	Percentage of population of country
1. Uruguay	3.0	Montevideo ..	1.4	47
2. Argentina ..	21.0	Buenos Aires ..	7.8	37
3. Denmark	4.6	Copenhagen ..	1.3	28
4. Austria	7.1	Vienna ..	1.7	22
5. Chile	7.7	Santiago ..	1.7	22
6. Japan	94.0	Tokyo	20.0	21
7. Hungary	10.0	Budapest ..	2.1	21
8. Great Britain ..	52.3	London ..	10.0	19
9. France	45.5	Paris ..	8.5	19
10. Israel	2.2	Tel-Aviv ..	0.4	18

City-states with fewer than 2 million people are: Iceland (42 per cent in Reykjavik), Costa Rica (32 per cent in San José), Lebanon (30 per cent in Beirut), Luxembourg (24 per cent in the city of Luxembourg), Panama (22 per cent in Ciudad Panamá), Liechtenstein (21 per cent in Vaduz). Furthermore, there are two sovereign states which for all practical purposes are identical with a city: Singapore and Monaco; and finally there is a state which is smaller than the city in which it is located—the Vatican.

Today almost half of French industry is concentrated within the city limits of Paris. More than 60 per cent of all the actors and two-thirds of all French writers are living in the metropolis. Paris is more heavily populated than the thirty-three next largest French cities taken together. As long ago as 1832 Heine voiced the opinion that

Paris is actually France; the latter is merely the environment of Paris. Everyone who wins fame in the provinces soon migrates to the capital, the foyer for all that is light and brilliant. France is like a garden where all the most beautiful flowers have been picked in order to collect them into a bouquet—and this bouquet is Paris.

H

No other great country of culture is as much "province" outside its capital as France is. For centuries an entire country has been drained so that its city may sparkle. At night Paris turns into Babylon; the slogan of the "Seine-Babel", which Frau von Bismarck used, already appeared about the middle of the last century.

Boccaccio, on the other hand, in 1350 told the story of a Parisian Jew who travelled to Rome and, horrified by the lasciviousness of that city, hastily returned to Paris. Casanova, who called Paris "the only city, the city of the world", upon his arrival in 1750 praised the "cleanliness of the inns, the quick service, the modest behaviour of those who wait on you at table, which most often is done by the ablest daughter of the house, who with her retiring demeanour, her modesty, her cleanliness, and her excellent manners inspires even the most shameless libertine with respect". The same Casanova, however, then twenty-five years old and well versed in the ways of the world, had to take a good bit of ribbing because he was surprised to hear a much admired opera diva name three different noblemen as the fathers of her children.

Very much to the point is Stendhal's description in his great novel *Le Rouge et le Noir* of the role which the world city plays in the affairs of love:

> In Paris, Julien's relationship with Mme. de Rénal would have been very quickly simplified. But in Paris, love is a fruit of reading novels. The young tutor and the timid wife of his employer would have found the necessary enlightenment on their relationship in three or four novels and even in the couplets of various operettas.

Heine expressed himself more caustically:

> All the beautiful actresses have their set prices, and those that cannot be had for a set price are most likely the most expensive ones. Therefore, one rarely knows here where the actress and the courtesan exchange their rôles ... where the iambic pentameter changes to tetrapodic fornication. These amphibians of art and vice, these "Melusines" on the banks of the Seine, probably represent the most dangerous aspect of the gallant city of Paris where so many lovely lady-monsters play their games. Woe to the uninitiated who gets caught in their nets! Woe to the experienced man as well, who knows that the charming fiend is hiding her ugly fishtail, and who is yet unable to resist the enchantment and, who knows, is perhaps all the more captivated by the voluptuous delight of his inner revulsion, by the fatal attraction of the lovely corruption, of the sweet abyss.

226

Nobody has transposed the lust of inner revulsion into more sonorous verses than Baudelaire, the greatest lyricist to put the wanton attractions, the temptations and the abysses of cosmopolitan cities into words. Where else but in Paris could his famous collection of verses have possibly appeared under the provocative and fascinating title *Les fleurs du mal*? He sings of these flowers even though they ruin him.

> In the sinuous windings of cities of old,
> Where horror itself can be turned to delight,
> I seek, as I let fateful fancy take hold,
> The worn yet entrancing odd creatures of night.

He talks about the "chaos of living cities", he longs to be "far from the black ocean of the foul city", and yet he longs equally to be back again in the "teeming city filled with dreams, where spectors accost passers-by in broad daylight". The beggars in rags, the *clochards*, he defines as the "vomit of the monster Paris". He sees the city as the playground of evil and at the same time as the stone body of the pure soul. In love as much as in hatred, he is inexorably bound to the city, a small speck of praying humanity, torn between cynicism and vulnerability, an orchid such as can grow only in a cosmopolitan city.

In Babylon, prostitution was still tied in with religion, or at least disguised as serving religion; in Paris it is no longer so. It displays itself as obviously as it once did in Nebuchadnezzar's metropolis. But why should the ads of travel agencies emphasize the morals of this city, when among those who lift their noses at the "Seine-Babylon" not a few would just love to do this frequently and happily right on the spot? Even if, all in all, the morals in Paris are a bit more uninhibited, we must not forget that the spirit is freer too. For centuries the best minds of France have eagerly flocked to this one city, which has become a world centre of culture and of the mind set free.

UNDER CLOUDS OF STEAM

LONDON . . . Implacable November weather. As much slush in the streets, as if the waters had but newly retired from the face of the earth, and it would not be wonderful to meet a Megalosaurus, forty feet long or so, waddling like an elephantine lizard up Holborn Hill. Smoke lowering down from chimney-pots, making a soft black drizzle, with flakes of soot in it as big as full-grown snow-flakes—gone into mourning, one might imagine, for the death of the sun. Dogs, indistinguishable in mire. Horses, scarcely better; splashed to their very blinkers. Foot passengers, jostling one another's umbrellas, in a general infection of ill-temper, and losing their foot-hold at street-corners . . . Fog everywhere. Fog up the river . . . fog down the river, where it rolls defiled among the tiers of shipping, and the waterside pollutions of a great (and dirty) city . . . Fog creeping into the cabooses of collier-brigs, fog lying out on the yards, and hovering in the rigging of great ships . . . Fog in the eyes and throats of ancient Greenwich pensioners . . . fog in the stem and bowl of the afternoon pipe of the wrathful skipper down in his close cabin; fog cruelly pinching the toes and fingers of his shivering little prentice boy on deck.

Thus, in *Bleak House*, did Charles Dickens in 1853 describe the capital of the country in which occurred the greatest transformation in the history of mankind since the invention of agriculture in Babylon: the Industrial Revolution—and as a consequence of it the birth of the modern giant city. The first of these cities was London itself. For seventy years it was the largest city in the world, and the population figure of this greatest concentration of human beings rose during this period from 2.5 to 8 million. At present, London is still the largest city in Europe, and most of the nations on earth still acknowledge London's Greenwich Observatory as the spot from which geographic longitude and world time should be measured.

In Roman times Londinium was an important city of approximately 70,000 inhabitants. In the fourteenth century, when England ruled large parts of France, about 35,000 people lived in London.

Queen Elizabeth I, whose reign lasted from 1558 to 1603, laid the foundation of the British world empire, whose heart was London. The popularity of Elizabeth and the brilliance of her court attracted large numbers of noblemen and wealthy merchants to the city, which spread so quickly that both Elizabeth and James I were concerned about the possible political consequences and passed edicts in a vain attempt to restrict the growth of London.

In the reign of Elizabeth the city was distinguished by the arrival of William Shakespeare, a twenty-two-year-old actor from Stratford-on-Avon. He soon won acclaim as stage director and playwright; he became co-owner of the Globe Theatre, the leading stage for works in the English language. In 1611 he retired to Stratford.

In 1588 the agile and boldly directed English fleet, in a nine-day battle in the English Channel, vanquished the strongest naval force of the century, the 130 clumsy ships of the Spanish Armada with their 2,600 cannons. This victory opened the way into the oceans of the world. Following in the footsteps of the Spaniards, the Portuguese, and the Dutch, English adventurers, pirates, and trading companies also began to engage in that kind of piracy on land and on the high seas which marked the beginning of the colonial era.

In 1607 the English settled on the east coast of North America, which the Spaniards had spurned because it had not seemed rich enough. From 1618 English bases existed in Africa, and from 1639 there were some in India. The colonial power which was the last to emerge became the greatest; in the seventeenth and eighteenth centuries it took many of the most valuable possessions, first from the Spaniards, then from the Dutch, and finally from the French, though not without bloody battles. In the nineteenth century London was the centre of an empire which in its over-all extension was the largest that had ever existed.

This imperium was a city-state, not unlike ancient Rome. About 1570 London grew into a metropolis (the third north of the Alps, following Paris and Antwerp), but as early as 1650, when the city had half a million inhabitants, it had left Paris, Constantinople, and the great cities of Italy and the Netherlands far behind and was then the largest city in Europe—which it still remained even after the Great Fire of 1666 that destroyed more than 13,000 houses. In the British Isles London had a tremendous lead over other cities; in 1700 London had 650,000 inhabitants; Bristol and Norwich, the next-largest cities, had but 30,000 inhabitants each. In no other state north of the Alps did the capital so completely overshadow all the other cities; in fact, when London became Europe's largest city, the population of England was only a small fraction of that of France or Germany. In addition to this unchallenged supremacy within the English nation, several other

factors favoured London's development as a city-state: the relatively strong central authority that governed England; the comparatively small area and well-defined boundaries of the state; the high degree of self-sufficiency within the country.

Casanova scoffed at the self-sufficiency of the English when he, then thirty-eight, visited London in 1763, and he also ridiculed the strictly observed Sunday rest. But he praised the general cleanliness and the complete freedom of the press, which certainly must have surprised the Venetian, who had just escaped the Inquisition. He often lost his way in the labyrinth of the giant city, which he referred to as "chaotic".

EUROPE'S LARGEST CITIES OF THEIR TIME

				Highest Population figure during that period:
6th century B.C. ..	..	Corinth	Greece	60,000
5th–3rd century B.C.	..	Syracuse	Sicily	400,000
3rd century B.C. to 4th century A.D.		Rome	Imperium Romanum	1,100,000
4th–12th century A.D.	..	Constantinople	East Roman Empire	700,000
1200–1400	.. ..	Naples	Kingdom of Naples	200,000
1400–1550	.. ..	Paris	France	300,000
1550–1650	.. ..	Istanbul	Turkey	500,000
From 1650 on ..	..	London	England	10,000,000

The hunchbacked professor of physics from Göttingen, Georg Christoph Lichtenberg, complained in a letter written in 1770 from London:

> The tremendous din everywhere, the great many new things wherever one looks, and the congestion of chaises and people are such that one commonly reaches one's destination late or not at all.

Five years later, on a second visit to London, Lichtenberg wrote of an evening stroll through Fleet Street, where nowadays all the great newspapers are concentrated:

> Buildings with plate-glass windows line both sides of the street. On the street floors, there are shops which seem to be built completely of glass, thousands of lights illuminate silverware shops, stores with engravings on display, bookstores, stores where one may see watches, glass, pewter, paintings, ladies' dresses and finery in good and poor taste, gold, jewels and steel ornaments, and next to them coffee shops, and no end of offices

selling lottery tickets. The confectioners' displays blind one's eyes and tickle one's nose with their brilliant candelabras. In the centre of the street, chaise rolls after chaise, cab after cab, cart after cart. Mingling in with this din and the hum and sound of thousands of voices and feet are heard the bells from the many church steeples and the tinkle of the mailman's bells . . . and the shouting of those who under the night sky offer warm and cold things to eat . . . Before you know it, a lovely, charmingly dressed girl takes you by the hand . . . then an accident happens not more than forty steps ahead of you . . . and then everybody is laughing, because someone fell down into the gutter . . . Meanwhile, you may hear a yelling of hundreds of voices, as if suddenly a fire had flared up or a house had collapsed . . . In Göttingen, one steps closer, and from about forty paces away one tries to find out what is going on. Here—especially at night and in this part of the city—one is glad to escape unscathed into a side street to wait out the storm. Where the street grows wider, everybody is rushing, no one ever gives the impression of strolling about or taking in the sights—it seems that everybody is rushing about on a matter of life or death.

At about this time the great Industrial Revolution was beginning to alter the established pattern of city development and to determine the course of history, for England and for the world, through centuries to come. One or two generations ahead of the next states to be industrialized (namely, France, Belgium, Germany, and the United States), England spawned its great machines and factories from London to Glasgow; and for a century thereafter the nation was the workshop of the world, with an increase of misery as well as of wealth. This development was the result of a concurrence of many circumstances:

1. Substantial natural resources and a well-developed mining system before industrialization. Coal, iron, lead, copper, and tin had been mined in increasing volume from the sixteenth century on. Coal production in Great Britain rose from 0.2 million tons in 1560 to 10.2 million tons in 1790.

2. Rich supplies of cheap raw materials from overseas such as only a great colonial empire could have access to, as for instance Indian cotton. The colonies later became indispensable markets for the new mass-produced goods.

3. A reservoir of cheap labour, which during the eighteenth century became available in England through the growth of big landownership, which in turn increased the misery of the agricultural class. From 1775 to 1815—that is, from the beginning of the American War of Independence to the end of the Napoleonic

Wars—emigration was virtually impossible. That meant that exactly during an essential phase of industrialization the surplus of people in Great Britain could not leave the country.

4. A stock of able technical experts and engineers who invented the machines and also knew how to work them. Mining, metal crafts, and manufacturing of cloth had already reached a high degree of skill. It is hard to decide whether the inventors made the factories possible or whether the impending industrialization created its inventors, so to speak.

Most of the great inventions at the dawn of the industrial era were made in England; outstanding among them were an efficient process of smelting and working iron, the steam engine, and textile machines. In 1767 the Englishman James Hargreaves replaced the age-old spinning wheel with the spinning jenny, which in 1779 was perfected by his compatriot Samuel Crompton, whose so-called spinning mule was capable of spinning Indian cotton so fine that mechanical looms seemed to become necessary. In 1785 the English parson Edmund Cartwright constructed such a loom, and mass production of cotton could now begin. For 150 years Manchester was the world centre of the textile industry.

The first iron rolling mill capable of moulding iron at red heat was built in 1754 by the Englishman Henry Cort. Up to then there had been only cold-rolling mills; red-hot iron was forged in the smithy. Ever since ancient times, iron was melted from the ore by way of a primitive charcoal process. About 1800 the English iron mills adopted the much cheaper and more effective method of smelting iron with the help of coal.

Even though large amounts of coal had already been required for the smelting of iron, much more was now needed for that tremendous invention which truly changed the world—the steam engine.

Man had harnessed the first forces which were more powerful than he when during the ninth millennium he tamed the animals. Oxen, horses, camels, and elephants were able to accomplish tasks for which man was not strong enough. The water wheel and the sailing ship too had been known since antiquity, and windmills had been in use since the early Middle Ages. Later, to generate power that was relatively independent of nature's caprices, human beings were put on treadmills, and oxen or horses were harnessed to a "gin", a beam which was pulled around an axis, hour after hour, always moving in the same circle, in order to keep a threshing machine or the hauling system of a coal mine in motion.

For the purpose of keeping the machinery in motion, a steam engine was employed for the first time in 1745 in an English mine. The Frenchman Denis Papin had invented this steam engine in 1690, but it was almost a century until the English inventor James

Watt perfected a high-power steam engine. Huffing and puffing, the end product of coal, water and ingenuity, steam drove man into the new era.

The first steam-driven pump had been installed in London's water-supply system in 1761, and in 1769, even before Watt con-
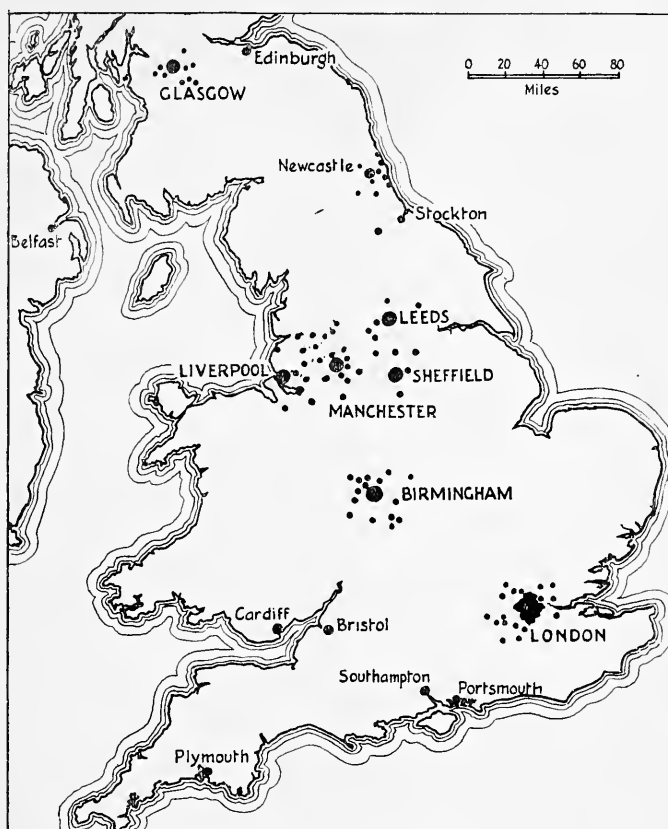
Britain's industrial centres of the nineteenth century.

structed his doubly effective low-pressure steam engine, the Frenchman Joseph Cugnot had made the first attempt to construct a steam engine that could propel itself forward. He built for the army a steam-driven vehicle which, with much wheezing and varying success, was used for pulling cannons. In 1803 the Englishman Richard Trevithick put a steam car on rails, but his rails were too weak. And on the Hudson River one of Watt's steam engines in 1807 propelled the first steamboat, built by the American engineer Robert Fulton.

In 1813 an English mining company employed the first service-able steam-driven locomotive, the so-called "Puffing Billy", which Hedley had designed. It pulled its coal cars faithfully for half a century. Hedley's more famous compatriot, the mining engineer George Stephenson, developed the locomotive further and per-suaded the builders of the new horse-drawn tramway from Stockton to Darlington on the English east coast to use his steam locomotive instead of the horses. And so it happened that the first railroad in the world started its run there in 1825. In 1830 the new giant cities of Manchester and Liverpool were connected by a railway, and so were Nuremberg and Fürth in 1835 (both lines using locomotives which Stephenson had designed).

Year	Invention or Event	Inventor	Country
1690	Steam engine	Papin	France
1745	First steam engine at work in a coal mine shaft		England
1754	Rolling mill	Cort	England
1765	Bengal, a British possession		
1767	Spinning jenny	Hargreaves	England
1769	Steam trolley	Cugnot	France
1783	Balloon	Montgolfier	France
1784	High-pressure steam engine	Watt	England
1785	Mechanical loom	Cartwright	England
1787	British settle in Australia		
1789	French Revolution		
1793	Cotton gin..	Whitney	U.S.A.
1795	Ceylon, a British possession		
1800	Lathe	Maudsley	England
1803	Steam carriage	Trevithick	England
1804	Steam shovel	Evans	U.S.A.
1805	Loom able to weave designs	Jacquard	France
1807	Steamboat	Fulton	U.S.A.
1810	London has 1 million inhabitants		
1813	Steam locomotive	Hedley	England
1819	Singapore, English		
1825	Railways	Stephenson	England
1835	London has 2 million inhabitants		

How this new invention impressed the contemporary world was probably most vividly described by Heine, who wrote from France in 1843:

The opening of the two new railroads, one of which goes to Orléans, the other to Rouen, created a stir here which affects everyone unless he has locked himself into a solitary cell. At this moment, the entire population of Paris forms a chain, as it were, by means of which one person transmits the electric shock to the next. But while the big crowd stares in amazement and con-sternation at the appearance of the great forces of mobility, the thinking mortal finds himself in the grip of an uncanny horror,

such as we always experience when the most tremendous, the most unfathomable occurrence takes place, an occurrence the consequences of which are unforeseeable and incalculable. We realize only that our very existence is being propelled, nay, catapulted, into new channels, that new conditions, new joys and new afflictions are awaiting us, and the unknown exerts its weird attraction, at once alluring and frightening. This must somehow be similar to what our forefathers felt when America was discovered . . . A new chapter in the history of man is beginning, and our generation may boast of having been there . . . The railway disposes of space, and only the dimension of time is left . . . I feel as if the mountains and forests of all the countries were advancing toward Paris. I am already aware of the fragrance of German linden trees, and the North Sea roars at my door.

In coal-rich England and Germany, as well as in most of the countries which are not heavily industrialized, the steam locomotive is still the most important transportation mechanism (even though the German Federal Railway is not reordering steam-driven locomotives). It was and still is the pacemaker of civilization. It is an impressive relic of the early days of industrialization and in basic construction is no different from the "Rocket" which Stephenson in 1830 rushed from Manchester to Liverpool at a speed of nearly twenty miles an hour.

One might have expected that, with the "elimination of space" through the railways and with the substitution of the steam engine for the treadmill, people would begin to enjoy better times. But as soon as man had put the steam engine in motion it started to drive him on, as it were, with the thrusts of its piston. The steam engines in locomotives and in factories devoured coal. Machines and rails were wrought of iron, and the foundries devoured coal. A host of miners descended into the earth in order to bring up the coal. The mining companies exploited with equal relentlessness the sources of energy, which for millions of years had been stored inside the earth, and the labourers they hired; working conditions were horrible.

There were not enough men to do the work that had to be done in the mining shafts and the factories. England produced iron and steel, locomotives and cotton for the entire world as well as for its own industry. Women and children were put to work. For a long time social legislation and the beginning of trade unionism were unable to cope with the consequences of this revolution which had begun in England and had spread through and taken hold of the entire world. In Liverpool, in 1842, more than half of the working-class children died before they had reached the age of five. The tremendous death rate among children and the early deaths of

tormented, badly nourished adults who lived in dark holes brought the life expectancy of the working class down to fifteen years.

Ugly factory cities sprouted from the ground wherever coal and iron were at hand and weavers' looms were clattering. There was no time for planning, for common sense, for hygienic cities, and certainly not for beauty. Blast furnaces, elevator towers, coal heaps, vegetable gardens, soot-blackened houses of misery, and giant smokestacks that puffed out black, brown, and poisonous yellow clouds, created the breathtakingly ugly picture of the industrial scenery, of the city without limits—the city that was not a dwelling place, but rather a place where nature and human beings were exploited. Manchester, Birmingham, and Glasgow were the great centres of this new world power of industry. Eventually smoke and stone buildings took the place of nature also in Belgium, in Lorraine, in the Ruhr, in the eastern part of the United States, in southern Japan, and in the Ukraine. And such industrial districts are inevitable—a fact that is sometimes overlooked in the fine plans for attractive cities of the future.

As English industry grew, so too did London, even though it was not primarily an industrial city, but rather the great trading centre. In 1810 London had passed the million mark, the first European city to do so since the decline of Rome. Shortly after 1850 the metropolis of the British empire, with approximately 2.6 million inhabitants, probably was larger than Peking, and thus the largest city on earth. The political and industrial hegemony of England and Europe over the rest of the world is clearly reflected in the size of this centre of power.

THE OLDEST CITIES OF MORE THAN A MILLION PEOPLE

1.	Rome	1st century B.C.
2.	Angkor	10th century A.D.
3.	Hangchow	12th century
4.	Peking	13th century
5.	Tokyo	about 1800
6.	London	1810
7.	Paris	1846
8.	New York	1871
9.	Berlin	1880
10.	Vienna	1885

Bewildered and fascinated, the contemporary world looked upon the gigantic city formation on the Thames. "I have seen the strangest spectacle that the world can offer to the amazed eyes," Heine wrote from London in 1828. The thirty-year-old poet noted the "stone forest of houses," and the "dreadful haste" of the people, and he went on:

If you send a philosopher to London and place him at a corner of Cheapside, he will learn more than from all the books at the recent Leipzig Trade Fair . . . If London is the right hand of the world, the active, the powerful right hand, then one may consider the street which leads from the Exchange to Downing Street as the artery of the world. . . . But do not send a poet to London! This stark solemnity in all things, this tremendous uniformity, this mechanical movement, this vexation of joy, this exaggerated, egregious London crushes the imagination and tears the heart asunder . . .

These people live in grand style . . . and in keeping with their rank, they have considerable debts, yet they are ostentatious enough to throw their guineas out the window, and for their entertainment they pay other peoples to fight each other . . . And that is why John Bull has to work day and night in order to earn the money for such expenses; he has to strain his ingenuity to build more and newer machines; . . . and he rushes and dashes from the Exchange to the Strand, without looking around, and one must forgive him for ungently pushing a poor German poet aside who gets in his way while standing at a corner of Cheapside looking at the display window of an art store. The picture at which I was looking was of the crossing of the Berezina by the French . . . and it seemed to me that the city of London was itself a kind of bridge across a Berezina, where everybody, panicky with fright, tries to squeeze through so that he may save his life, where the daring horseman tramples down the helpless pedestrian, where those who fall are lost forever, where the best comrades unfeelingly rush over the body of one of them . . . I expected great palaces and saw only small houses. But their uniformity and their endless number are tremendously impressive. Due to the damp air and the coal fumes, these brick houses all adopt the same colour, namely a brownish olive green; they all are built in the same style, usually two or three windows wide, three windows high, and on top they are decorated with small red chimneys which look like bloody extracted teeth . . .

The stranger who wanders about in the great streets of London and does not just accidentally stray into the quarters where the mob lives will not see anything, or only very little, of the great misery that exists in London. For only now and then will he come upon a woman in rags, silently standing at the entrance to a dark lane, an infant suckling her flaccid breast, begging with her eyes. Above the mob that is glued to the ground hovers England's nobility like beings of a different world, who look upon England only as a temporary abode, who consider Italy their

summer garden, Paris their ballroom, and the whole world their property.

The determination of the Englishman not to share his roof with another family, no matter how poorly off he was, spared London— in spite of its tremendous growth during the nineteenth century— those tenements that sprouted so horridly in Vienna and Berlin. The little man's houses lined up in endless rows along sad-looking streets do not make the city any more pleasant, but they do make it more spacious, than other vast cities. London is, next to Tokyo, even now the most extensive city in the world.

THE LARGEST CITIES ON EARTH

1800 (population in thousands)		1914 (population in millions, including suburbs)		1939	
1. Peking .	. 2,500	1. London .	. 7.3	1. New York	. 10.5
2. Hangchow	. 2,000	2. New York	. 6.0	2. London .	. 8.3
3. Tokyo .	. 1,000	3. Paris .	. 4.5	3. Tokyo .	. 6.0
4. London .	. 950	4. Berlin .	. 3.8	4. Paris .	. 5.1
5. Paris .	. 550	5. Chicago .	. 2.3	5. Berlin .	. 4.3
6. Istanbul	. 500	6. St. Petersburg .	. 2.3	6. Moscow .	. 4.1
7. Naples .	. 400	7. Tokyo .	. 2.2	7. Shanghai	. 3.5
8. Lisbon .	. 300	8. Vienna .	. 2.1	8. Chicago .	. 3.5
9. St. Petersburg .	. 240	9. Moscow .	. 2.0	9. Osaka .	. 3.0
10. Vienna .	. 230	10. Philadelphia .	. 1.6	10. Leningrad	. 2.8

More than any other city, therefore, London needed the railways; without them, London probably never could have grown beyond the two and a half million population which had made Peking the largest city before the industrial era. Without the power of machines, a greater concentration of people would have been prohibited by the problem of food supplies: just imagine how long it would take horse-drawn carts to distribute milk, for instance, for a city of five million people; the milk certainly would sour on the way. More-over, a steadily growing percentage of people in this spreading city had to be shuttled back and forth between their domiciles and their places of work, because the modern industrial city separates, often by many miles, those two places, which in the era of craftsmen were united under one roof. And so, at long last, in London and Paris an idea which technically could very well have been realized in antiquity became reality: the idea of public transportation facilities.

The first step in this direction were the hackney coaches, which were operated, generally from fixed stands, in London as early as

1625, and in Paris from 1650. In the French capital their stand at first was in front of the Hotel St. Fiacre; hence the designation *fiacre*, which is still applied to the French taxicab of today. However, they were no help for the little man, and they had, especially during the seventeenth and eighteenth centuries, a strange competition—the sedan chair, which had been used in Babylon and Rome. When he was in London, Casanova had himself carried about in a sedan chair.

In 1662 Louis XIV ordered the establishment of a kind of omnibus service—spacious eight-seat horse-drawn carriages driven along established routes at scheduled times. They were called *carosses à cinq sous* because the fare was five sous. Strangely enough, there did not seem to be much need for this kind of transportation in the city of Paris with its half a million inhabitants; whatever the reason, the first public-transit system in history soon was discontinued. Not until 1823 did Paris make a new start with the horse-drawn omnibus; London followed in 1829, and so, in time, did many European and American cities.

This horse-drawn omnibus with seats on the roof became the typical means of transportation for the cosmopolitan cities of the nineteenth century. The horse was still growing in importance, even though the steam locomotive had long been invented. In fact, during the second half of the nineteenth century, the horse-drawn tramway was regarded as the most modern accomplishment in city transportation, even though the steam railway in 1825 had already taken its place on the run from Stockton to Darlington. New York installed that idyllic railway in 1850, Paris in 1860, Berlin in 1865. The first electric tramway rolled in Berlin in 1881 (in London not until 1905). In 1890 Paris had a steam tramway of the kind which during the Second World War could be heard huffing and puffing across the French-Belgian frontier between the neighbour cities Lille and Tournai. London began to install subways, which at first, like the Parisian tramways, were steam driven, in 1863; Budapest followed in 1896, Paris in 1900, Berlin in 1902, and New York in 1904. But before these innovations, suburban trains ran through London, connecting the outlying districts with the inner city.

Most of the newer city districts which, as a result of the improved means of transport, spread rapidly around London and other old cities during the nineteenth century, were very ugly. But in the heart of London evidence can still be seen of the work of the seventeenth-century Earl of Southampton who laid out Bloomsbury and Soho Squares; of the landowners who built the pleasant streets of Mayfair; and of Christopher Wren, whose elegant church towers break the skyline of the City and whose great cathedral, St. Paul's, dominates the new buildings shooting up around it. And walking

by the Thames on a fine day one can admire with Wordsworth the majesty of the "ships, towers, domes, theatres and temples".

But this great city did not officially become the capital of Great Britain until 1888, when it was joined with the residential city of Westminster—Westminster and the City are still quite distinct areas, the one the seat of government and the other the centre of commerce—and twenty-seven other towns long inseparably linked with London, to become the County of London, with a population of 3.9 million. But in the larger area that people habitually referred to as London there were five million inhabitants. The attempts of the administration to accommodate the actual development of the city failed from the very beginning to keep step with the boundless expansiveness of the largest city on earth.

Hitler and Goering discovered in 1940 how large London actually is, when they thought the city could be "erased" and a military decision could be effected from the air. The German bombs inflicted severe wounds upon the city, but even of the City, which covers approximately one square mile, or only one seven-hundredth part of London, they destroyed but 35 per cent.

London continues to grow. England, where the unchecked and random city development of the industrial era originated, is still one of the most urbanized countries on earth: more than 80 per cent of the people live in cities, approximately 45 per cent in metropolitan cities. England is the home of industry, of the concentration of people that industry requires, of giant cities without which industry could not live and which, on the other hand, could not live without industry.

This was the English revolution. It has changed commercial life as much as the French Revolution changed political life. It significantly changed man's approach to life, his position in the world, and his power. In the country, things *grow*; in the city, they are *made*. The English revolution created the basis for London's world hegemony, which it maintained for a century. It has destroyed the thousand-year-old city structure and is introducing an era when a network of gigantic cities will spread all over the earth.

PETER'S BURGH AND STALIN'S CITY

THE RUSSIAN Revolution differed from the English in that it was
not a revolution *of* the city, but a revolution *within* the city, such
as the French had been. And it, too, has changed the world; in
fact, it is still busily doing so. No other cities have made as much
history as those in the vast land between the Baltic Sea and Bering
Strait. Two of these cities were named for outstanding men,
though not by their proper names, Ulyanov and Dzhugashvili, but
by their pseudonyms, Lenin and Stalin.

> Our Russian Empire consists of a great number of cities—
> capital cities, governmental cities, district cities, provincial
> cities . . . and, in addition, of a venerable old residence, and of
> the mother of all Russian cities. The venerable old residential
> city is Moscow, and the mother of all Russian cities is Kiev.
> Petersburg also belongs to the Russian imperium.

With such plain disparagement, the Russian poet Andrei Bely
introduced in 1913 the capital of the Tsarist empire in a novel called
Petersburg. The artificial metropolis built by Peter the Great never
became popular with the Russian people.

"The first requirement for the expression of national sentiment
in Russia is to hate Petersburg with heart and soul!" The fanatic
patriot Ivan Aksakov wrote these words to Dostoyevsky from
Moscow. And the latter wrote of the "twofold misfortune of living
in St. Petersburg, the most intentional and abstract city on the
globe".

The intention to which Dostoyevsky refers was that of a great,
wild, stubborn man, Peter I, called the Great, who in 1682 at the
age of ten ascended the throne of the Tsars and who led his country
to the rank of a world power during the forty-three years of his
reign. Impetuous and unscrupulous, he even tried to push it into
the orbit of European civilization.

He began with reforms concerning dress and the old-Russian full
beard; and ultimately he chose a new capital as a decisive means of
changing the character of his country: he transferred the capital
from Moscow, the treasure trove of tradition in the heart of Russia,

into a no man's land in the western part of the country, without tradition, and just recently taken away from the Swedes. New ideas are nowhere more easily and more radically realized than in a new city; there are no established traditions and customs to ·oppose them.

In 1703, which was the fourth year of the Northern War against Charles XII of Sweden, and long before the war had been brought
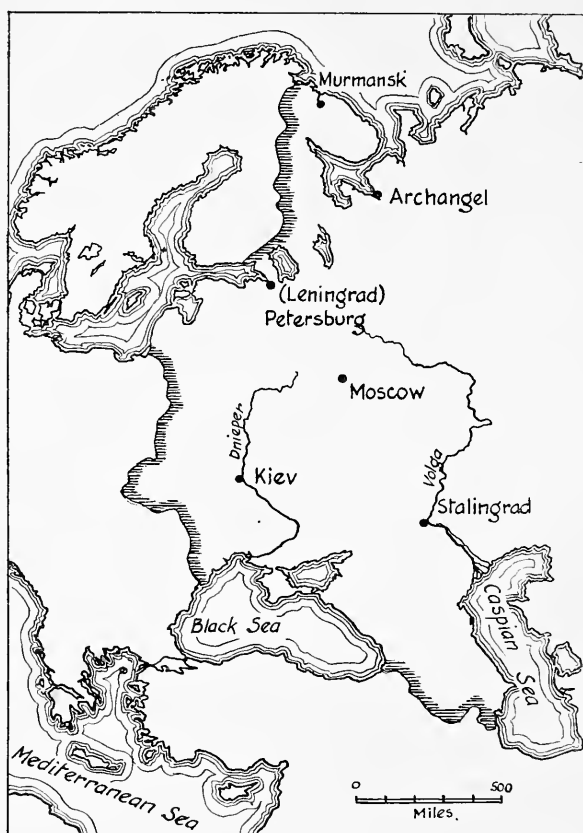
The main cities of Russia.

to a decisive conclusion, the Tsar gave orders that the new Russian capital be built on a group of islands in the Neva, where the river flows into the Baltic Sea. The city was to be known as St. Petersburg. The islands were marshy, and so were the Neva shores. The location, below latitude 60 degrees north, on the same level with the southern tip of Greenland, meant that there are several weeks of almost total darkness in winter, and in summer there are the

"White Nights" that gave Dostoyevsky the title for a famous novella.

The Tsar ordered more than 80,000 convicts, peasants, and prisoners of war to the Neva region. There were not nearly enough picks and shovels for them. Those who did not have any tools had to scoop up the soil with their hands and collect it in their jackets, and the supervisors wielded their knouts over them. Thousands drowned in the swamps, froze to death in the grim winter cold, or died of hunger when the flow of food supplies was interrupted. Tens of thousands died of dysentery. New supplies of conscript labour followed. All in all, approximately 100,000 Russians and Swedes were to die in the process of building a capital which no Russian, except the Tsar, wanted.

When Peter the Great entered his city in 1709, the large brick yards were still standing, surrounded by pompous government buildings, and barracks and stables were huddled between half-finished palaces. As in Venice, many houses had to be built on stilts. The wide, straight streets which the Tsar himself had designed impressed the Russian people as odious and prodigal.

Nevertheless, St. Petersburg had 80,000 inhabitants in 1753. The city drew its sustenance from governmental bureaucracy and from Russia's trade with Western Europe which gradually came that way. Up to that time, Archangel, still further north, at the southernmost tip of the Arctic Ocean, had been the great trading centre. As far as harbour conditions were concerned, St. Petersburg's location was in no way more favourable, because here too the ocean freezes over in winter. Moreover, Peter the Great did not succeed in his attempt to win the Russian people over to navigation, which was his passion. As a young man, he had studied shipbuilding in Holland and England. His wish to build his capital as a harbour city contributed to the decline of Moscow.

And so, upon the graves of 100,000 forced labourers and over the opposition of all the people, royal obstinacy built the metropolis of a gigantic empire. But the city lived, nevertheless, and grew. At the beginning of the nineteenth century its population exceeded that of Moscow; in 1914 it was, with its 2.3 million inhabitants, one of the largest cities on earth. Among all the artificially created capitals in history, St. Petersburg became the largest.

One cannot fail to realize that it is possible for a world city to be born out of caprice and cruelty; that 100,000 dead interfere with its flourishing no more than fratricide interfered with the founding of Romulus' and Cain's cities. The city is man's very own creation on earth, it is the world he himself fabricated, and thus there is no reason why it should be different from the people—both pious and cruel, sublime and vulgar.

St. Petersburg became a city much admired and loved in foreign countries, and about the turn of the century it was counted as one of the most beautiful cities on earth. It was famous for the light-yellow and pastel-blue tints of many of the public buildings and private palaces, for its magnificent squares and golden cupolas. The German diplomat Kurd von Schlözer, who had travelled the entire world, wrote in 1857 from the Tsar's metropolis:

> What a pleasure to stroll at one or two o'clock along the Nevsky Prospect! Where else does one find such splendour, such colourful life, and so much originality concentrated all in one place? If one of the old four-in-hand carriages belonging to the boyar families wallows through the snow, while right and left graceful sleighs with well-padded coachmen and swift horses flit by, and coquettish eyes sparkle from a framework of ermine, sable, and velvet; or if one ploughs ahead past the rows of

ARTIFICIAL CAPITALS
Cities specifically built to be capitals

City	Capital of	Founder	Begun	Capital till	Largest population (in thousands)	
					As Capital	Later
Akhet-Aten	Egypt	Amenophis IV	1364 B.C.	1352 B.C.	?	—
Dur-Sharrukin	Assyria	Sargon II	713 B.C.	705 B.C.	?	—
Seleucia	Seleucid Empire	Seleukos I	312 B.C.	280 B.C.	400	600
Antioch	Seleucid Empire	Seleukos I	300 B.C.	83 B.C.	200	300
Samarra	Caliphate	Mutassim	836	883	100	15
St. Petersburg	Russia	Peter I	1703	1922	2,300	3,500
Karlsruhe	Baden	Margrave Karl Wilhelm	1715	1945	165	230
Washington	U.S.A.	Congressional decision	1790	now	2,000	—
Canberra	Australia	Parliament decision	1913	now	40	—
Brasília	Brazil	Kubitschek	1956	now	120	—

handsome houses amid throngs of pedestrians from many countries, in colourful uniforms or folk costumes, past the many street vendors who from behind their copper samovars recommend their tea and *priskuska*, one readily forgets the Boulevards, the Rue de Rivoli, the Linden, the Jungfernstieg. This is unique!

And they certainly knew how to live in St. Petersburg—that is, if they were rich, in money or in debts. Schlözer tells us of an enchanting party at one of the aristocratic homes. Grottoes, brooks, fountains, a military band, magnificent rooms, exquisite furniture—but nothing paid for. The pump for the fountain cost 10,800 roubles; a Prussian mechanic who installed it "has for six weeks appeared daily at the palace to collect at least 100 roubles, but without success."

The Revolution, whose aim it was to change the paradise of the rich into a paradise without classes, did not happen over night. For decades it had cast its shadow before it—in the students' rooms, and in basement taverns, in books, and in fantastic dreams. Besides, revolts, police raids, and deportations to Siberia had always been taken rather matter-of-factly. Dostoyevsky was one of those who were banished to Siberia. In 1866 he wrote *Crime and Punishment*, the novel in which the destitute student Raskolnikov formulated a plan, and a philosophic justification to support it, to murder an old usuress, not merely to steal her money, but to prove himself and vindicate his theory.

To translate such a theory into action, even in the form of a novel, to *do* what others only *think*—could it have happened in any city but St. Petersburg? It was there that an army of students and proletarians mixed Russian fervour and recklessness with the cosmopolitan tendency toward arrogance, toward abstract, unrealistic thinking, toward anarchy, lacing it with the mentality of the scum of the world city. It was there too that materialism and nihilism, Marx and Hegel, stepped out of the realm of pure ideology, where Lenin succeeded in setting up the fantastic utopia of a classless society as the earthly goal of such a numerous people.

[St. Petersburg, 1905:] The city is surrounded by a circle of factories with a great many chimneys . . . At the time there was tremendous excitement in all the factories. The workers talked and argued. Pistols were handed out . . . Now and then one could hear wild shouts from the anti-government comrades. These men ran as fast as they could from the railroad terminal to the Admiralty, revolutionary handbills in their hands. Those were strange days, foggy days. The poisonous October was drifting through the streets.

In this description, Andrei Bely catches the hectic atmosphere of the year, in which the crew of dreadnought *Potemkin* revolted.

In Bely's novel *Petersburg*, written in 1913, the pampered son of a senator voluntarily accepts the assignment from a clique of insurgents to kill his father, who is one of the pillars of the government, by throwing a bomb at him.

In Petrograd (as St. Petersburg was renamed in 1914), in 1916, the Siberian monk Rasputin, who as a miracle-working doctor had achieved incredible influence at the court of the Tsar, was poisoned, riddled with bullets, and, still not dead, thrown into the Neva, where he drowned.

In Petrograd in March, 1917, a provisional government forced Tsar Nicholas II to abdicate. On April 16, Vladimir Ulyanov, better known as Lenin, arrived in the capital to assume leadership of the radical Bolshevik party. His return to Russia from Switzerland had been arranged by the German government, which had also given him a measure of financial support in the hope that he would be able to effect Russia's withdrawal from the war and thus permit the German army to bolster its hard-pressed forces in the west.

In *Ten Days that Shook the World*, the best eye-witness account in existence of the Russian Revolution, the American reporter John Reed wrote of the mood that prevailed in the city on the eve of the Bolshevik revolution that ousted the provisional government in October (old style), 1917:

> Petrograd presented a curious spectacle in those days. In the factories the committee-rooms were filled with stacks of rifles, couriers came and went, the Red Guards drilled . . . In all the barracks meetings every night, and all day long interminable hot arguments. On the streets the crowds thickened toward gloomy evening, pouring in slow voluble tides up and down the Nevsky, fighting for the newspapers . . . Hold-ups increased to such an extent that it was dangerous to walk down side streets . . . Gambling clubs functioned hectically from dark to dawn, with champagne flowing and stakes of twenty thousand roubles.

St. Petersburg, November 5. John Reed reports:

> Outside a chill, damp wind came from the west, and the cold mud underfoot soaked through my shoes . . . At the corner of the Nevsky I bought a pamphlet by Lenin, "Will the Bolsheviks Be Able to Hold the Power?" paying for it with one of the stamps which did duty for small change. The usual street-cars crawled past, citizens and soldiers clinging to the outside in a way to make Theodore P. Shonts green with envy . . . Along the side-

walk a row of deserters in uniform sold cigarettes and sunflower seeds.

November 6. Kerensky, the thirty-six-year-old Russian Prime Minister and leader of the moderate Socialists and outspoken foe of Lenin, defends himself in a passionate speech before the Petrograd Soviet against the accusation that he was a traitor and, his voice thundering above a deafening noise, announced that he would liquidate the real traitors, the Bolsheviks.

November 7. The Bolsheviks storm the Winter Palace and assume power. John Reed writes:

> Thursday, November 8. Day broke on a city in the wildest excitement and confusion . . . Superficially all was quiet; hundreds of thousands of people retired at a prudent hour, got up early, and went to work. In Petrograd the street-cars were running, the stores and restaurants open, theatres going, an exhibition of paintings advertised . . . All the complex routine of common life—humdrum even in war-time—proceeded as usual. Nothing is so astounding as the vitality of the social organism— how it persists, feeding itself, clothing itself, amusing itself, in the face of the worst calamities.

The American reporter, himself a fanatical Communist, describes an appearance of Lenin:

> It was just 8.40 when a thundering wave of cheers announced the entrance of the presidium, with Lenin—great Lenin—among them. A short, stocky figure, with a big head set down in his shoulders, bald and bulging. Little eyes, a snubbish nose, wide, generous mouth, and heavy chin; clean-shaven now, but already beginning to bristle with the well-known beard of his past and future. Dressed in shabby clothes, his trousers much too long for him. Unimpressive, to be the idol of a mob, loved and revered as perhaps few leaders in history have been. A strange popular leader—a leader purely by virtue of intellect; colourless, humourless, uncompromising and detached, without picturesque idiosyncrasies—but with the power of explaining profound ideas in simple terms, of analyzing a concrete situation. And combined with shrewdness, the greatest intellectual audacity.

For several days, the revolution was confined to the city of Petrograd. And even there its end seemed to be near: Kerensky was on his way to the capital with a Cossack army. But then he was defeated on November 12 and fled abroad. Starting from Petrograd,

Bolshevism conquered all of Russia in a bloody civil war, and later on eastern Europe and China too.

In 1922 Lenin officially declared Moscow the seat of government. He was entombed therein 1924. Russia turned away from the West and set out to reach its goal, not to become Europeanized, but to make Europe and eventually the whole world Communist.

It had been Napoleon's ambition to add Russia to his other conquests. But Moscow was to become his city of destiny. On June 24, 1812, he crossed the river Niemen with 450,000 men, in order to strike back at the Tsar for his refual to adhere to the Continental system, by which the French emperor was trying to force England to her knees.

On September 14, having marched on foot for more than six hundred miles, the Grand Army saw the golden domes and the colourful Oriental houses of Moscow shimmering in the sunlight. The triumphal cry "Moscow! Moscow!" was picked up by one after another of the hundreds of thousands of soldiers who believed they had at long last reached their goal. They thought that the war was won and looked forward to the comfortable winter quarters that Napoleon had promised them.

The Emperor himself seemed so carried away by the thought of his imminent entry into the great, holy city of Russia that even his contemporaries suspected that emotional involvement had gotten the better of military sober thinking. Outside the gates of Moscow, however, he became angry when no deputation appeared to ask his clemency for the city—something he had come to expect after his conquests of Vienna and Berlin, Cairo, and Madrid. The soldiers, on their part, became worried when they learned that hardly half of Moscow's 250,000 inhabitants had remained in the city, and those who remained had locked themselves up in their houses. Moscow looked dead.

On the fifteenth day of September, 1812, one day after the French entered the city, Napoleon moved into the Kremlin. On the very same day, a fire broke out in one of the bazaars of the inner city. The piles of materials, silks, and leather goods stocked there burned in a whirl of flames that quickly spread to the near-by houses and thence through most of the city. On November 16 Napoleon was forced to flee from the Kremlin when the fire threatened to cut him off from his troops. From Petroskoye Castle he watched the fiery clouds leaping up to the sky. Then, it is said, he had his first premonition of disaster.

The fire raged for six days, destroyed three-quarters of the predominantly wooden houses and half of all the churches, and killed more than 20,000 people, including many Frenchmen. It also

completely undermined the discipline of the Grand Army. There was hardly a soldier who could resist the temptation to search the ruins of the buildings for booty. Frenchmen and Russians joined forces in plundering the city, in staging outrageous drinking bouts; and they wasted food supplies that might have been sufficient to sustain the army through the winter. Realizing that it would be impossible to remain in Moscow until the following spring, Napoleon decided on retreat. On October 19, just when the Russian winter set in, the Grand Army started out on its disastrous march, which only a small part was to survive. Starving, exhausted, harassed by the incessant attacks of the Cossacks from the rear, tens of thousands of Frenchmen collapsed in the snow and froze to death. Neither in the soldier's knapsack nor in the supply wagon was there any ammunition, or food, or shoes, or clothing; instead, there were liquor and silk, jewels and trophies of all kinds. The Grand Army died *of* Moscow. In Moscow, where no great battle was fought, Napoleon's dream of ruling the world was smashed; there he lost the war.

The question, Who set the fire that burned Moscow? remains unanswered. The Russians accused the French; but the fire destroyed the buildings and the supplies that would have enabled the French to remain safe in Moscow through the winter. On the last day of the fire the Emperor wrote to the Tsar, who was in St. Petersburg:

> The beautiful and magnificent city of Moscow is no more. Rostopchin ordered it to be burned down. Four hundred arsonists were caught in flagrante delicto; they all admitted that they had started the fire on orders given by the governor . . . This course of action is horrible and without purpose. Or could the purpose have been to deplete me of some of my resources? But how could anyone want to destroy one of the most marvellous cities and something that has taken centuries to create, in order to gain such an insignificant advantage?

Count Rostopchin was the governor of the city. Later he indignantly denied the insinuation that he, or any other Russian, had given orders to set fire to Moscow. Tolstoy in his *War and Peace*, proffers an explanation that seems plausible enough:

> Moscow burned down because it happened to find itself in a situation in which any wooden city had to burn down, regardless of whether there were or were not one hundred and thirty inferior fire engines at hand or not . . . a wooden city, where almost daily bad fires occur, even though the houseowners are present and

police are on call, inevitably has to burn down if instead of the civilian inhabitants only soldiers are around, who smoke their pipes, feed their camp fires in the Senate Square with the senators' chairs, and twice daily cook their meals.

Tolstoy mentions the one hundred and thirty fire engines. Before the French entered the city, they had been transported elsewhere. This fact is not denied, and it is all the more interesting when one considers that the Russians had not sufficient time to remove their valuable military equipment and materials which were stored in the Kremlin. No other conclusion seems indicated but that the Russians were bent upon destroying Moscow and with it the Grand Army. The French marched toward Moscow almost as if in a trance, as if the possession of this city would automatically decide the outcome of the war; the Russians took advantage of the city's magic from the opposite angle—they burned what was the goal of the French, right before their very eyes and drove them into disaster.

Somehow the magic of a city may also have been one of the reasons for the tenacious fighting during the Second World War over the city that was to prove fateful for Hitler—Stalingrad. Hitler insisted on conquering this particular one, Stalin's city; while Stalin planned to have the Germans bleed to death over his city. Advancing as far as Napoleon did, but less easily resolved to retreat, Hitler stood by when his Sixth Army was surrounded; he did not permit any attempts at breaking out of the encirclement, and he let it happen that 330,000 men died or were deported to Siberia. This was the beginning of the end for the German military forces.

As we see, two Russian cities, Moscow and Stalingrad, provided the stage where two great wars were decided. And from St. Petersburg (later Petrograd, today called Leningrad), another great Russian city, the revolution set out on its course, which within a few decades put its imprint upon one-third of the earth, while the other two-thirds today still, and today actually more than ever, are constantly kept in suspense by it. Moscow is a central command post second to none on earth. There, the Russians once lost everything save their freedom; from the very same city of Moscow, freedom is now more effectively suppressed than from any other place in the world.

In 1899 Knut Hamsun could still write exuberantly:

I may as well state that I have visited four of the five continents . . . and I have truly seen quite a bit of the world; but I have never seen anything that could be called equal to the

Kremlin in Moscow. I have seen beautiful cities—and I think Prague and Budapest certainly are among them—but Moscow is like a fairy land . . . Moscow has 450 churches and chapels, and when from all the bell towers and steeples the church bells are ringing, the air over the great city trembles. From the Kremlin one looks down upon an endless sea of magnificent buildings. I would never have thought it possible that such a city could exist on earth—green, red, and golden cupolas and towers everywhere. This gold darkens everything of which I ever dreamed.

Nowadays, the cupolas of Moscow seem lost between factories—wretched places—and tenement buildings; they seem to shrink next to the massive towers of Lomonosov University, which are decorated in confectioner's style, and the skyscraper near the Red Gate and other ostentatious buildings, which will not tremble when the bells toll. Some people go on a pilgrimage to the Kremlin as to a shrine; others are in fear of it; and a third group hates it. St. Petersburg and Moscow, the two world cities which at one time in the past emerged from the vast country of the Russian peasants as something strange, colourful, and cruel, now determine the fate of mankind in our twentieth century. Nowhere else can we find better validation of Spengler's statement: World history is city history.

Chapter 4

THE TRAGEDY OF BERLIN

LENIN INTENDED to transfer the centre of world revolution from Moscow to Berlin as soon as Bolshevism had conquered Germany; Hitler planned to make Berlin the "capital of the world" as Babylon and Rome had been. But while the German armed forces were being routed by the Russians at Stalingrad, the Americans and the English undertook to obliterate Berlin and all the great German cities. Hitler and his adversaries put a complete end to the pleasant custom (which had been accepted practice during the wars of the eighteenth and nineteenth centuries), of *not* indiscriminately destroying the enemy's cities.

In our time Berlin and Vienna, the two former imperial residences, are among the few cities which are not growing. Among the cities with more than a million inhabitants they are the only ones that now have a smaller population than they did in 1914 (Istanbul only recently reattained its 1914 population figure of 1.5 million). Their birth rates are among the lowest in world statistics, their suicide rates among the highest. Since the break-up of the Danube monarchy, Vienna has been like an oversized head on a tiny body. Berlin was a field of ruins in 1945 and is now cut in half by the Iron Curtain; the western half leads an insular existence which is unique in history.

Three hundred years earlier most of the German cities were brought to the brink of oblivion by another wave of destruction: the Thirty Years' War. At that time about half of all the Germans fell victims to the fighting and to the pestilences. Two-thirds of the people in the archbishopric of Magdeburg died, and in the duchy of Württemberg three-fourths of its inhabitants perished. Leipzig was beleaguered and conquered five times, Magdeburg six times. There were 45,000 people in the city of Augsburg in the year 1618; in 1648 there were only 16,000.

It took about one hundred years for the wounds of the cities to heal. But the old magnificence that the cities possessed in the late Middle Ages was gone forever, and most of the German cities did not regain their former privileges. The Thirty Years' War depleted their wealth and left them with fewer rights than they have today; the city magistrate, for example, was not elected by the citizens, but was appointed by the sovereign.

This did not change in Prussia until 1808, when Baron Karl vom und zum Stein, one of the ministers of King Frederick Wilhelm III, achieved autonomy of administration for the cities. Unlike the imperial cities of the late Middle Ages, they remained subjects of the regional sovereign, but the right to determine their own affairs was returned to them. Stein, who had already initiated the emancipation of the peasants in 1807, did everything in his power to build a democracy on a solid foundation. In doing so, he also created favourable conditions for the renewed flourishing of the cities during the nineteenth century, and for the decisive rôle which their middle classes were to play during the industrial era.

Bismarck, on the other hand, had no great regard for the cities. "I may as well admit . . . I distrust the people of large cities, but then I do not regard them as being true Prussian people," he declared at a session of the Prussian Diet in 1852, when he was thirty-six years old. "The real Prussian people will know, however, how to make them obey, should the great cities at some future time once more rise, even if the cities should have to be razed from the face of the earth."

In 1852 Prussia's greatest city, Berlin, had caught up with Vienna in size of population, even though, as far as international renown was concerned, it could not yet compare with Austria's capital, the one-time Roman settlement which had become the residence of the Dukes of Austria and from the fifteenth century to 1806 was the capital of the Holy Roman Empire. This capital served twice as Europe's bulwark against the Turks, who after the fall of Constantinople were storming toward the centre of the continent, advancing through the Balkan peninsula. In 1529 and in 1683 the fortress of Vienna forced them to a halt, even though for their second onslaught the Turks employed 200,000 soldiers and 250 cannons. They never succeeded in conquering Vienna and, thanks to Vienna, never were able to penetrate deeply into the heart of Europe.

After the victory over the Turks, the residence of the Hapsburg emperors began to flourish. "Everything was attractive in Vienna; there was much money and great luxury," Casanova noted in 1753, when the city had a population of 170,000. On the other hand, the Venetian ladies' man found a lot to be desired in Vienna:

> The bigotry of the Empress makes it extremely difficult, especially for strangers, to partake of the joys of Cytherea. A host of spies who bear the impressive title "commissioners of moral conduct" were the relentless bailiffs watching over all young women . . . There was only one way for a young female to escape harassment by these spies: she had to walk in the street, with her head humbly lowered and a rosary in her hands; in this case the infamous police would not dare to take her into

custody without a very good reason, because it could just be possible that she was actually on her way to church, and in such a case Maria Theresa would certainly have ordered the commissioner to be hanged.

At the time of Casanova's visit to Vienna, Christoph Willibald von Gluck, the first master of German opera, was living there. When Gluck died in Vienna in 1787, Wolfgang Amadeus Mozart lived there, and in that same year the seventeen-year-old pianist Ludwig van Beethoven arrived in Vienna from Bonn in order to study with Mozart and Joseph Haydn. In 1808, one year before Haydn's death, Franz Schubert, the eleven-year-old son of a schoolmaster, was accepted as a soprano in the court choir.

In 1824, when Beethoven, completely deaf, incurably ill with a liver ailment, bearing a grudge against the world, finished his Ninth Symphony in Vienna, Joseph Lanner, then twenty-three, formed his famous dance orchestra with which he launched the Vienna waltz. His assistant conductor was Johann Strauss, who composed the "Radetzky March". One year later, while Beethoven was still living, the younger Johann Strauss was born, who up to this day has remained the unrivalled king of the waltz and the operetta. In 1862, when Strauss was well on the way to highest fame, Johannes Brahms, a son of the city of Hamburg, found his new home in Vienna, where Anton Bruckner too was active at that time.

CITIES OF MORE THAN ONE MILLION POPULATION IN THE GERMAN-LANGUAGE REALM
(Population figures in thousands)

	1500	1800	1850	1914	1939	1960
Berlin	12	170	420	3,800	4,340	3,370
Hamburg . . .	22	105	130	1,050	1,710	1,820
Vienna	30	230	430	2,100	1,930	1,700
Munich	15	40	110	600	840	1,100

Vienna is the world capital of music. In the whole history of music, there is nothing to compare with the creative achievements of this blessed city during the period from the end of the eighteenth to the end of the nineteenth century; in general cultural activity only Athens and Florence are comparable. Even in our day, Johann Strauss is still one of the most frequently heard composers and, according to those public opinion polls that are so much favoured in the United States, at least three of the symphonies which Beethoven composed in Vienna are most frequently named among "the fine recordings you would want to have along with you if you were marooned on a desert island".

Another force that was to shape the modern world came out of the cosmopolitan city of Vienna—psychoanalysis, the exploration of

our inner life in terms of a theory which is condemned by the churches, which still is the subject of scientific controversy, but which nevertheless undoubtedly can claim success in curing the emotionally ill; it can also pride itself on providing a way to commercial success for the healthy. The world power of advertising —increasingly, and to some extent in a rather frightening manner— applies methods for which the Vienna psychiatrist Sigmund Freud supplied the key in his books published between 1900 and 1930, even though this by-product of his work was hardly intended by him. Freud's doctrine that we are dominated by the hidden realm of the unconscious, that the conscious reasons for our actions do not necessarily have any connection with our actual motives—in short, that "man is not master in his house"—this doctrine was refined in America and was, rather crudely, shaped into a number of formulas for inducing people to buy something for which they had no previous desire and of which they are not at the moment actually in need.

The American writer Vance Packard has very impressively explained the process in his book *The Hidden Persuaders*. The most important step is to ascertain why a person does, or does not, buy a product—not the *apparent* reasons, which even the subject himself believes to be the true ones, but the *real* ones, the unconscious reasons.

The motivation researchers, for instance, discovered that the purchase of a chocolate bar is often accompanied by a bad conscience for being so wasteful. Result: the advertising slogan of a certain brand of chocolate no longer claims that "our chocolate is the best", but suggests instead "You really have worked hard. Why not treat yourself to a bar of brand X chocolate?" The person thus addressed buys, and he thinks he buys because he likes the taste of the chocolate. The advertising experts know better: He buys because they have neutralized his bad conscience by reminding him of his accomplishments.

These selling tactics are insidious; their scientific foundation is explosive. The question arises: Could this foundation have been laid anywhere but in an outstanding world city, a bastion of the free spirit, such as Vienna was about 1900? It is true that men of genius living and working in small towns have affected the development of the world, but it is certain that many revolutionary ideas would not have been conceived had not Athens and Florence, Paris, St. Petersburg, and Vienna provided such exceedingly fertile soil for the men of genius in their midst. Perhaps it actually took a cosmopolitan city to make a man so bold and so insolent that he would reduce religions, customs, traditions, and sacred values to a few instinctual drives. In the cosmopolitan city of Vienna, Freud

erected that towering structure of thought which some consider sublime, while others see it as satanical. Nobody however denies that his dangerous system, especially in its practical application in America, has changed man's world. Out of Vienna, the world city that by then was already on the wane, emerged the theory that does much toward furthering growth and wealth in countless cities; for converted into advertising appeal it helps to sell more, which means more production, which in turn means building larger factories—and larger cities too.

In 1919 Vienna was severed from its once great empire and found itself at the eastern edge of the small Austrian Republic. Some 350,000 Hungarians, Czechs, Slovaks, and Croatians departed from the metropolis which no longer was their capital. From 1938 to 1945 Vienna was annexed to a country to which it never belonged, and during that period the city's Jewish population declined from 115,000 to 6,000.

During the early post-war years the birthrate in Vienna was lower than anywhere else on earth. And as late as 1957 there were only 8.8 births per 1,000 inhabitants (less even than in 1932), and 15.6 deaths. It is not unusual for a city to die out without an influx of people from the country, but such a low birthrate has never been recorded since the late imperial period of Rome. Moreover, the rural areas from which any influx would have to come are much too small for the erstwhile capital of a world power. Vienna cannot live forever on its justifiably famous charm.

It is a comparatively recent development in the history of housing, that one can rent one's home. The inhabitants of a nomad's tent or of a farmhouse were naturally the owners. It is true that not every head of a family had a house, but if he did not, he was a slave or a servant or a hired hand, who had the privilege of living in his master's house, though not as a *tenant*, as we understand the word. The German town of the Middle Ages consisted almost exclusively of rows of semi-detached houses in which the owners lived with their families and domestic servants.

The first houses built for the purpose of renting on a commercial basis were probably to be found in the city of Carthage. This was a big step in city history, an important factor in the development of *large* cities. Tenements existed in many of the great cities of the late Greek period, especially in Alexandria; they existed in Rome and Constantinople to an extent unequalled until the nineteenth century. There one could already find those boxlike structures accommodating more than thirty families under one roof; like our old-fashioned tenements, they were grouped around courtyards and utilized every square foot of space.

The City of London, showing extensive rebuilding to replace war damage.
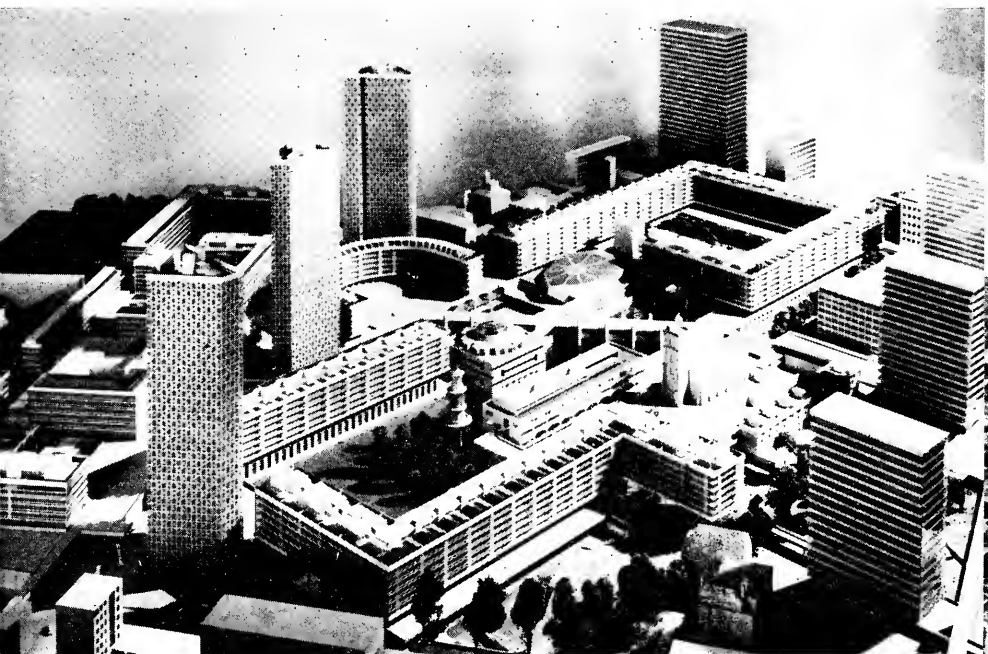
A model of the 35-acre Barbican redevelopment plan of the City of London—to include multi-level traffic, 2,150 flats, space for 2,600 cars, an arts centre, concert hall, art gallery and public lending library.

The development of transport in London: Horse-buses in the Strand at the end of the nineteenth century.

Congestion as a result of increased use of private cars in the 1960s.

A view of the Nevsky-Prospect, Leningrad (St. Petersburg).

An aerial view of the post-war reconstruction of Stalingrad.

Old Moscow: A view from the Kremlin of the city's towers as Napoleon must have seen them (copper-plate dating from 1799). Before and after the fire of 1812 which brought disaster to the French, many foreigners extolled Moscow as the most beautiful city in the world.

And the new: Administrative buildings in the "sugar-cake" style, and skyscraper on the river bank at Smolensk. The aim that every Soviet citizen should have more than ten square yards of living space is even further from fulfilment in Moscow than in the rest of Russia.

Berlin, 1930: Working-class flats, with five interior courtyards. (page 257).

Redevelopment of Berlin, 1957: A view down the Kurfürstendamm at night.

Front of the new conference hall in West Berlin.

Ruins of the ancient city of Macchu-Picchu, fortress town and last refuge of the Incas in the Cordilleras of Peru.
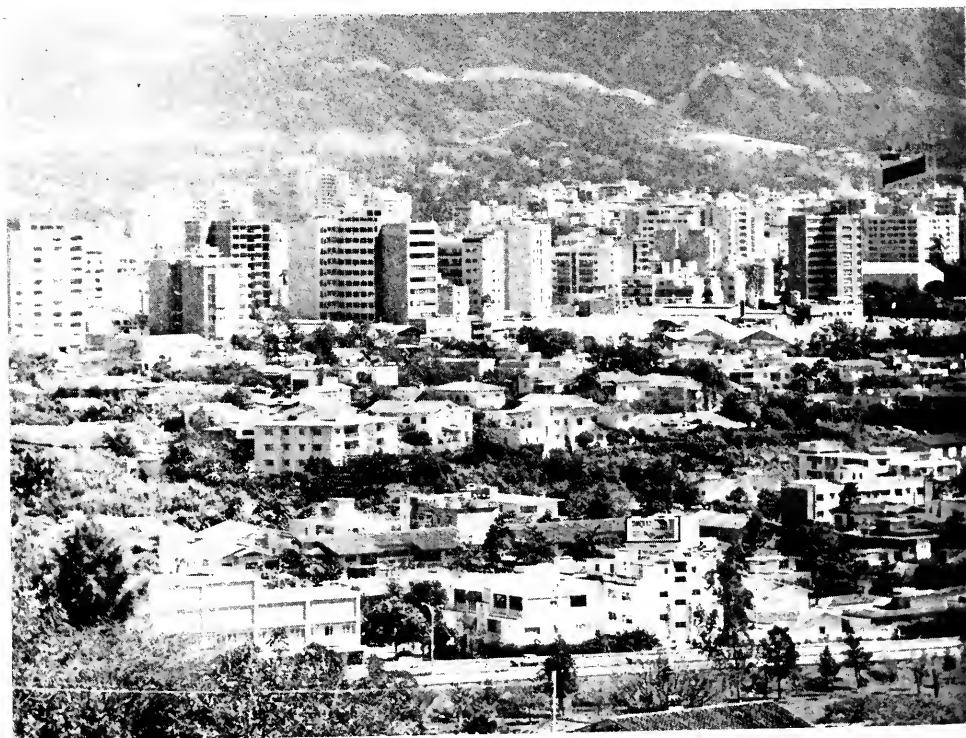
View of the modern city of Caracas, oil city of Venezuela.

How it began: A township in the American West towards the end of the nineteenth century—no cars and no factory chimneys.

The industrial landscape of Pittsburgh today, in the heart of the world's greatest coal and steel area.

Skyscrapers in the heart of New York—the 'asphalt jungle'.

Chicago: The Merchandise Mart, one of the biggest office buildings in the world.

In contrast to the massive style shown above, this striking modern office building of glass and bronze in New York.

City at an altitude of 11,830 feet: Lhasa, the capital of Tibet, with the Potala, the former palace of the Dalai Lama.
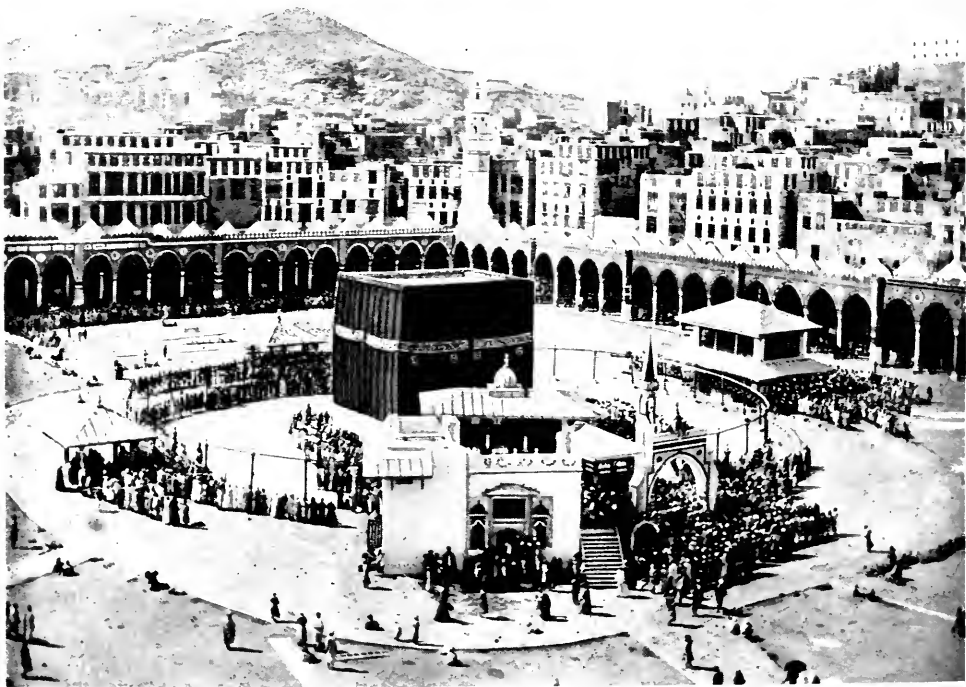
City in the desert: Mecca, the holy city of Islam. Centre, the Ka'aba.

City in the Tundra: Vorkuta, the coal town krown to many German prisoners-of-war, north of the Arctic Circle in European Russia, with typical Soviet architecture.

City of clay: Kano, ancient trading city in northern Nigeria. Most of the houses are built of clay, sand and water which harden into a substance resembling concrete.

Canberra, built since 1913 expressly as the national capital of Australia.

Two new administrative capitals.

Chandigarh, new capital of East Punjab, designed by Le Corbusier on the concept of self-contained "neighbourhood units". This is the front view of a block of houses for Government Junior Servants.

Aerial view of part of the Los Angeles freeway system, an attempt to solve the traffic and parking problems of the United States.
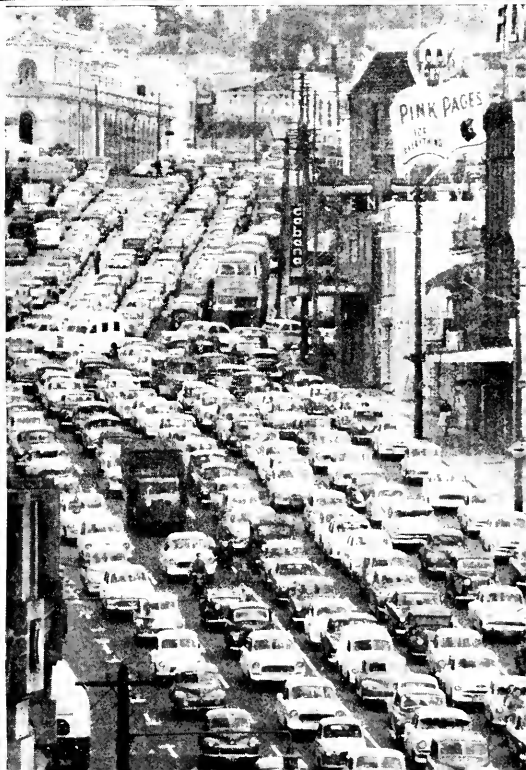
Six-track one-way street: the evening rush-hour in Sydney, Australia.

In the Precinct, Coventry, shops are also on two levels.

For pedestrians only: Two war-damaged towns recreated with traffic-free shopping centres.

In the Lijnbaan, Rotterdam, covered ways protect shoppers between stores.

Brasília—the city of the future?

The President's Palace of the Dawn in Brasília, the most modern city in the world.

All that remains today of Nabopolassar's Palace in Babylon.

In Germany the first rental houses were built in the late Middle Ages. First steps in that direction were perhaps the attic dwellings where the servants or a journeyman lived with their families; or such charitable institutions as the "Fuggerei" in Augsburg, a group of fifty-three small houses lined up in rows, for two families each—families that were "impoverished through no fault of their own". This institution is still in existence; the families who live there pay a token rent of 3·43 marks (about seven shillings) per year.

In the eighteenth century the first large tenements in Germany sprang up in Saxony, and about the middle of the nineteenth century tenement buildings invaded Berlin and Vienna. Of the inner court, which in Babylonia had been the very heart of the house, only a narrow air shaft remained, where the garbage cans were lined up. This was the only source of light and air for a dozen families. Running water was available, if at all, only in the hallways, and one toilet served several families.

One may safely say that the worst tenements ever to be built could be found in Berlin, which about 1900 had the reputation as the biggest tenement city in the world (a distinction that now probably belongs to Moscow). The rear courtyards of Berlin were dirty, without sunlight, walled in on all sides, the grown-ups' horizon and the children's playground. Not infrequently, the first rear courtyard provided access to a rear house and the courtyard behind that often led to a third house, the most hideous complexes having as many as six inner courts. In this manner, the blocks of tenements —most of them five storeys high—spread endlessly, desolately, throughout many sections of the city, especially in the sections known as Wedding and Moabit, and in the entire eastern part of the city. The factories needed workers, and the real-estate speculators built in a way that would not waste a square foot of ground.

For a long time, Berlin, the upstart among the cosmopolitan cities, had more enemies than friends. It had its origins as a city in 1432, when the two Spree villages Berlin and Kölln, which had been established in the thirteenth century, were combined under the name of Berlin. In 1486 the combined city became the residence of the Margraves of Hohenzollern and later of the Electors of Brandenburg. Friedrich Wilhelm, known as the Great Elector (he reigned from 1640 to 1688), made Potsdam an additional residence. He also built the street Unter den Linden in Berlin, and he gave the city international flavour by giving the Huguenots permission to settle in Berlin. For a time the French refugees represented about one-fifth of the city's population. The "Berlin air" was freer than that of Paris.

With the rise of Prussia under Frederick the Great, Berlin developed tremendously as a trading and industrial city; second

only to Vienna it soon achieved a population of 100,000. Voltaire praised the grandeur of its layout. Between 1788 and 1791 the Silesian architect Carl Gotthard Langhans built the Brandenburg Gate, the magnificent edifice at the end of the Linden and the symbol of the city.

In 1806 Napoleon's troops entered the Prussian capital. The French chief medical officer, Baron Percy, noted in his diary:

> Berlin indeed offers a magnificent impression. The Brandenburg Gate and the street that leads to it are marvellous. The buildings of this great city are majestic . . . The Protestant churches, the old residence, armouries, and numerous private houses prove by their beautiful planning, their elegant architecture, their bold dimensions, that there is as much taste and talent in Berlin as there is in Paris . . . His Majesty has given orders to treat the people of Berlin with restraint and consideration. We obey, but we are constantly tempted to beat them up, because these braggarts stare at us without any restraint . . . The Austrians are more worth while than these people here. Vienna may be less attractive than Berlin, but the Viennese are more sympathetic than the people of Berlin.

From 1810, when the University of Berlin was founded with Johann Gottlieb Fichte as its first rector, Berlin began to grow as an intellectual centre of Germany. Goethe, however, was not enthusiastic about the city; in 1823 he wrote about the people of Berlin:

> Living there is a race of men who are so bold that one does not get very far with them by being delicate. One has to talk back to them, and one may even have to become tough, if one wants to hold one's own.

In the second half of the nineteenth century the Prussian capital left Vienna far behind in size and in political might. In 1866, after Prussia defeated Austria in the Seven Weeks' War and assumed the leadership of the German unification (without Austria), Berlin became the seat of the North German Confederation; and in 1871 it became the capital of the new German Empire. The young giant city on the Spree had, by that time, a population of 830,000 and was fairly bursting with vitality; the next-largest cities of Germany—Hamburg, Breslau, Munich, Dresden—all had populations of fewer than 300,000. Yet there were many who did not favour Berlin as the capital; the people of southern Germany and of Hamburg for a long time resented their subordination to the noisy parvenu, whom

they considered arrogant, ostentatious, militaristic, and uncultured.

In the city itself, one got a different impression. A ditty often heard there in 1870 tells of the artists' rendezvous at the Hotel Kaiserhof—"at every table a young Goethe . . ." However, it was not so much the artists as the tempo that impressed the visitor to Berlin—the tempo, unprecedented in Europe, of the imperial city's growth between 1871 and 1914, when it became the biggest industrial city and the most important railway centre in all Europe.

Unlike old Nuremberg, Berlin welcomed the stream of newcomers, who came to the city from all parts of the country, with open arms. In 1880 Berlin already had more than a million inhabitants. In 1905 only 40 per cent of the citizenry were born in Berlin, 52 per cent came from the provinces and especially from East Prussia. Without this open acceptance of newcomers a world city cannot develop. It was this attitude that favoured the rise of Babylon, Athens, Alexandria, Rome, Constantinople, Paris, and Vienna as well.

Wilhelm II, the last German emperor, promised to make Berlin the most beautiful city on earth. In appreciation of this promise, the German schoolchildren sang:

> The emperor is a lovely man,
> His home is in Berlin.
> And if 'twere not so far from here,
> I'd love to live therein.

Even if Sir Austen Chamberlain remarked that compared with London and Paris, Berlin made "a somewhat provincial impression", nobody could deny that shortly before the First World War Berlin had become truly cosmopolitan. And it really had become a proper capital of the world power Germany—a capital city whose spirit dominated the entire country, a capital city that set the goals for which the entire country had to work and live and even die.

It is not easy to explain what the country had to die for in two world wars. But it is certain that Germany's defeat in the First World War caused bitter resentment against Berlin and Prussia, especially in southern Germany. And yet Berlin adapted itself with equanimity to its new rôle: the capital, without the trappings of court and nobility, of a Germany that had been reduced in size and stature.

Berlin itself expanded; in 1920 the city limits were extended to include Charlottenburg, a metropolis in its own right, six other heretofore independent municipalities, and fifty-nine villages. Actually, these localities had long been considered as belonging to Berlin; the adjustment, therefore, was no more than official recognition of the city's real area. Statistically, Berlin's population jumped

from 2.1 million to 3.9 million, and the city became the third-largest on earth, surpassed only by London and New York. Paris, it should be said, would have been granted third place, and Berlin fourth, if the French capital were officially redefined according to its real, rather than its administrative area.

Nevertheless, Berlin as the third or fourth-largest city entered its most remarkable period after the fall of the imperium. Albert Einstein was director of the Kaiser Wilhelm Institute in Berlin. In relation to the world of the theatre, Berlin, throughout the first
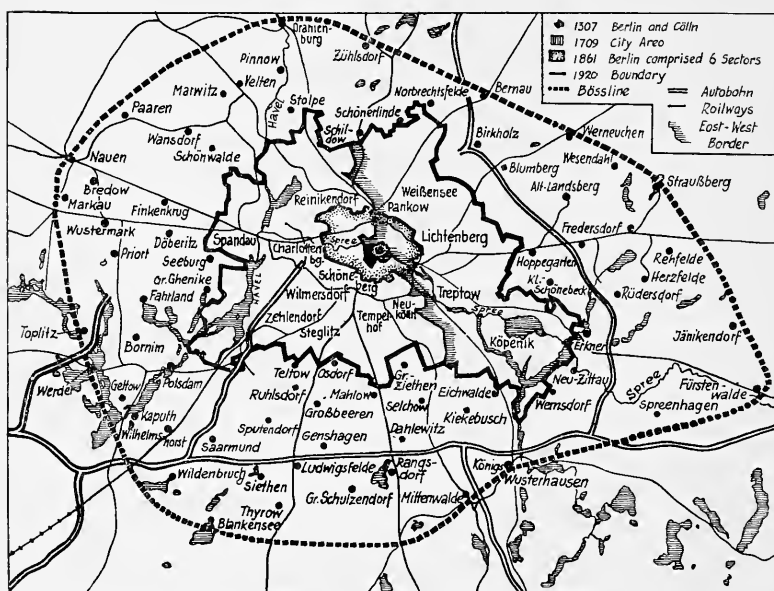
The development of Berlin: Gustav Böss, Burgomaster of Berlin 1921–1930, proposed extending the boundaries of his city from the black line to the broken line (as shown here). But his plans for a Greater Berlin were not successful.

third of this century, was the most lively and vital city on earth; one need mention only the Deutsches Theatre with Max Reinhardt and Leopold Jessner's Grosses Schauspielhaus. And after the First World War, Berlin was also a centre of the art of movie making. As a matter of fact, during the '20s, Berlin was considered a most vital city in every respect.

An Austrian writer, Roda Roda, once said that he would like to dine in Vienna and sleep in Paris, but he would prefer to *live* in

Berlin. There was always time for amusement. The enormous tempo of living was ameliorated by the people's mother wit and a dash of self-irony that mellowed the big-mouth attitude and made it all more human. Nowhere on earth was the atmosphere more cosmopolitan and prejudice rarer than in Berlin at that time.

And there were other advantages in Berlin. Up to 1913 building plans had been officially approved, plans according to which, had they ever been executed, approximately 21 million people could eventually have lived in the city area. But in 1925 the city officials decided to release only 193 of the city's 340 square miles for building purposes and to keep the rest permanently green. The parks, woods, and lakes, which reached far into the city, the healthy climate, the excellent traffic conditions in the city proper and in its suburbs rounded out the picture of a city which in the eyes of most Germans seemed now rather a pleasant place after all.

> Berlin, located at 52 degrees 31 minutes north latitude, 13 degrees 25 minutes east longitude, has 20 railroad stations serving long-distance travel, 121 for suburban trains, 27 on a city-encircling line, 14 for intra-city connections, 7 freight yards, besides streetcars, elevated trains, buses . . .

Thus the Berlin neurologist Alfred Döblin begins his novel *Berlin Alexanderplatz*, in which he catches the Berlin of 1929 from the perspective of Franz Biberkopf, street peddler gone astray.

> First of all there is "Alex". It still exists. There is nothing spectacular about it . . . but the main thing is: it is there. And they are always running across it, and there is a horrible dirt, because the Berlin magistrate is so genteel and humane and lets the snow dissolve all by itself into mud. And let nobody touch it! . . . And the streetcars are crammed with people who all have somewhere to go!

It is somewhat weird reading today, what Döblin, in the Berlin of 1929, in his flippant and obscure style, wrote about the decline of the cities:

> There is still Hahn's Department Store—empty, everything cleared out, eviscerated; only some shreds of red paper sticking to the plate-glass windows. A pile of trash right here in front of us. From earth you came, to earth you shall return. We had built a marvellous house, but nobody now goes in or out. And thus *kaputt* are also Rome, Babylon, Nineveh, Hannibal, Caesar—everything and everybody is *kaputt*; think about it. My own

comment is that, firstly, they have begun to excavate all these cities, according to the pictures in last Sunday's paper, and secondly, that these cities have served their purpose, and one can now start to build new ones. You don't mourn over trousers that are worn out; you buy new ones—that's the way the world lives.

And now *kaputt* are Rome, Babylon, Berlin. It all started on January 30, 1933. Brandenburg Gate, witness to so many and varied events—Napoleon entering the city, emperors, kings, brilliant parades, civil war and street fighting—now saw a well-disciplined and very impressive torchlight parade. Making a blunder which Freud in Vienna must have greatly enjoyed, Goebbels stated in a radio interview on the evening of this day, that a "senseless ecstasy" had taken hold of the German people.

For a while, Hitler had contemplated making Munich the "capital of the Movement", the capital of the Reich also, or else building a new metropolis according to his own ideas and wishes. In this respect, however, Berlin proved to be more powerful than he was. But then he felt that he must make changes so that the city would be more worthy of him.

To create in Berlin a truly representative capital must be considered one of the foremost tasks of the Third Reich [Hitler said in 1942]. To begin with, the railroad terminal and the approaches to the main highways should be so that even the Viennese would be overwhelmed by the thought: This is our capital. At the moment one really cannot blame a Viennese, visiting Berlin, if he is disappointed in comparing it with the grandiose view his own city offers.

On another occasion Hitler predicted that "in ten years from now, nobody will be able to boast knowing all the wonders of the world unless he has seen the new Berlin". In 1940, after having been in Paris for three hours, he immediately ordered that the two boulevards which were being planned for Berlin should be enlarged to a width of approximately four hundred feet. (He had found one of these thoroughfares almost completed and had named it the East-West Axis; the North-South Axis was never built.)

At the intersection of the two axes was to stand a triumphal arch of the "truly gigantic dimensions" so much liked in the Third Reich; each of the pillars supporting the Gate was to rest on a foundation measuring 295 by 559 feet. In 1940, when Germany was already at war, Hitler ordered that a 12,000-ton concrete block be erected in Berlin's Tempelhof, in order to test whether the ground there could accommodate his architectural brain child.

In 1938 the Berlin Press reflected on such plans as follows:

> With gratification and pride, we, the people of Berlin, interpret
> the information released by the Superintendent of Buildings
> [Albert Speer] to imply that efficiency in building will be aug-
> mented by dignified grandeur. One section joins the next with
> surprising unity. A new city grows according to a new kind of
> planning that combines order and beauty. Here as everywhere
> else, work is being done with greatest efficiency.

Everything was indeed being done with great efficiency. Berlin
was turned into the biggest heap of rubble ever to exist on earth.
Cologne and Dresden, Hiroshima and Nagasaki had a higher per-
centage of demolished buildings, and such total razings as that of
Babylon by the Assyrians or of Carthage by the Romans did not
happen in modern times, with the exception of villages like Oradour
and Lidice. But all these places were very much smaller than Berlin.
Of the world Capital into which Hitler had intended to turn Berlin
and which he meant to name "Germania", so that all peoples with
a "Germanic racial core" could consider it as the heart of their
world—of this city nothing remained but a field of rubble stretching
from horizon to horizon.

At all times, cities were destroyed in the course of battles; that
is one of the recurring chapters of history. Besides, in earlier days
it was customary to destroy the enemy's cities *after* they had been
defeated—"*Ceterum censeo Carthaginem esse delendam.*" The Second
World War introduced the new idea of trying to force the enemy to
his knees by destroying from the air the cities which were not yet
conquered.

Strategically, this attempt was to a certain extent correct, because
industry, transportation and communication, as well as the power
of government, are concentrated in the cities. But over and above
that, there was unmistakably a certain amount of city magic in-
volved—an assumption that the enemy simply would not survive
the destruction of his cities; that their being wiped out would
weaken him forever; that he would be disgraced by not having cities
any more; and, as a matter of fact, that beyond all these rational
deliberations, it plainly and simply would be a good thing to
destroy his cities.

And so Hitler tried in the autumn of 1940 to "erase" the cities
of England. This attempt was bound to fail because, to mention
just one reason, England's cities were much larger than Germany's
air force, so that the "erasing" could be accomplished successfully
only in Coventry. In Warsaw, on the other hand, the S.S. accom-
plished this feat even without bombings.

When, three years later, the English and the Americans had a strong air force at their disposal, they paid back in kind. In 1943 they began the well-planned destruction of Germany's great cities. They succeeded, but this did not decide the war. On the contrary, obsessed by the almost antique idea that nothing was of greater importance than the destruction of cities, the English and Americans insisted on keeping up the barrage of bombs even long after its strategic ineffectiveness had become obvious.

A witness above suspicion, the Australian war correspondent and historian Chester Wilmot, proves in his book *The Struggle for Europe* that no appreciable damage was inflicted on German defence industry by the destruction of her cities. Record production was reached in 1944, when most of the large German cities were already in ruins. Wilmot wrote:

> In October [1944] the tonnage of bombs unloaded on German cities by the R.A.F. was twice as great as it had been in any previous month of the war, but the damage inflicted on the enemy's war industry did not rise proportionately. "Effective additional damage," says [Air Chief Marshal Sir Arthur] Harris, "could only be done to the already devastated cities . . . by an enormous expenditure of bombs, as much as four to five thousand tons in a single attack and sometimes up to 10,000 tons in two attacks in close succession." Even then the results were often disappointing. Bomber Command's most effective attacks had been those which caused great conflagrations, as at Hamburg in July 1943, but in cities like Cologne and Essen there was nothing left to burn, and the blast-bombs, which had caused great havoc when the buildings were intact, now did little more than convulse the rubble.

The collapse of the German defence industry happened very rapidly, however, when during the final phase of the war the Allies at long last changed their strategy and concentrated on bombing oil refineries and railroad junctions. Lacking supplies and men, the catastrophic deficiency in petrol finally struck the German Wehrmacht the deadly blow. On March 18, 1945, German defence minister Albert Speer emphasized this fact in the memorandum he prepared for Hitler:

> The enemy's air force has further concentrated his attacks on communications facilities. Consequently, commercial transportation has been substantially reduced . . . The total collapse of the German economy must certainly be expected in four to six weeks.

	1939 Population in thousands	Percentage City Destroyed	Approximate number of Individuals bombed out	Amount of Ruins in cubic yards
1. Berlin . . .	4,340	49	2,200,000	98,000,000
2. Hamburg . .	1,710	51	870,000	42,000,000
3. Dresden . .	630	60	400,000	32,500,000
4. Cologne . .	770	72	550,000	30,000,000
5. Frankfurt . .	550	60	330,000	17,000,000
6. Essen . .	670	60	400,000	15,500,000
7. Dortmund . .	540	65	350,000	13,000,000
8. Nuremberg .	430	53	220,000	12,000,000
9. Düsseldorf . .	540	42	220,000	10,500,000
10. Munich . .	840	40	330,000	10,000,000

For Comparison:
Volume of Empire State Building in New York 991,000
Volume of Cheops Pyramid 2,575,000

But the experience of the kind of bombing most effective for military purposes was not always applied. On February 13, 1945, British and American bomber squadrons undertook the most devastating air raid in history: they destroyed Dresden, which up to then had been spared. In the city streets were throngs of refugees from Silesia, and within a few hours 200,000 people perished in the hail of bombs and the holocaust they created. This was twice as many people as later perished in Hiroshima and Nagasaki—more corpses than either Genghis Khan or Tamerlane ever left behind in a city.

It is true that Dresden had become strategically interesting because of the imminent juncture of the two fronts, which later met near Torgau on the Elbe, and that the destruction of all railroad terminals and supply installations, and even the adjoining residential sections, could be justified from a military viewpoint. But the railway stations were not actually the targets; they were destroyed only because they could not possibly remain standing when the entire city was reduced to a smouldering heap of rubble. The Allied bomber command displayed its full capability; it did what Hitler had tried and failed to do.

And of what use would our atomic rockets be to us if all people were to live in villages?—this is a question that many military leaders may ask. Should there be another war, the atomic bombs would again explode over the cities, even though that would not decide the outcome of the war, since by now the production centres and the firing pads of the atomic missiles are safely hidden underground or under water. It would seem that the generals find it impos-

sible to give up a concept which has its roots in ancient times—in Babylon, Greece, and Rome—that a state consists only of its cities. And so it happens that natural catastrophes, in their sum total, have been less detrimental to cities than has man himself.

Hitler died with Berlin. To everyone's surprise, he did not withdraw to his "Alpine fortress", upon which the Allies looked with some apprehension, even though it now appears that it never was quite so formidable as they believed it to be. In his testament, Hitler explained: "After a battle of six years of struggle, which in spite of all setbacks will go down in history as the most glorious and gallant expression of a people's will to live, I cannot tear myself from the city which is the capital of this Reich."

"The city", "the capital"—what a ringing sound these words must have had, even in his final hour, for the construction worker, the corporal and Reich Chancellor Adolf Hitler from Braunau-am-Inn. He hoped to exalt his bloodstained existence by linking it with a cosmopolitan city whose ruins were to be his gigantic and horrible mausoleum.

On April 30, 1945, Hitler's life ended in the bunker of the Chancellery. On May 2 the Russians were in command of Berlin, as they had been in 1760, during the Seven Years' War. This time, however, they had come for a longer stay. In June 1945 American, English, and French troops took possession of the western three-fifths of the city.

And once again hate was poured over the ruins. Allen W. Dulles, who later was to become Chief of the American Central Intelligence Agency, wrote in an article, "Good-bye, Berlin", which appeared in *Collier's* magazine, May 11, 1946: "Berlin, like Carthage, has represented the spirit of destructive conquest. It has lost its right to be the capital of the Germany of the future . . . The city is without a real history, without landscape, without architecture and without charm." Dulles suggested that the inner city should be preserved in its state of ruin as a "perpetual memorial to the Nazis and to Prussia".

In December of the same year, a rising politician named Konrad Adenauer, who at the time was chairman of the Christian Democratic Union in the British Zone, declared: "We here in the Western Zone refuse to accept much that goes under the name of 'Prussian spirit'. I believe that the German capital should rather be located in south-west Germany than in Berlin, which is so far to the East. Whoever would make Berlin the capital again would spiritually create a new Prussia."

In June 1948 Stalin tried to take over West Berlin by blockading its supply lines. In earlier times there would have been only two ways out of such a dilemma: either to give up the city or to go

to war. But the Americans and the English, who with their airplanes had destroyed more cities than any people ever before, now found a third way out with the help of the airplane and thus saved the city to which their bombs not so long ago had carried so much destruction. They made the incredible happen: 2.5 million people were kept alive for a whole year by the Berlin Airlift.

Once more the people of Berlin met with compassion, and for the first time even from foreign countries. All along the line from Bonn to Washington it suddenly became a matter of honour to be *for* Berlin. The Federal Diet declared Berlin the capital of Germany, but this had no practical significance. Today, there is hardly an office in the world which creates more popularity for its holder than that of mayor of West Berlin. President Eisenhower seemed determined to honour the political significance of Berlin, something that General Eisenhower apparently had not felt able to do. It seems that with reference to Berlin the Americans are slightly plagued by a bad conscience for having allowed the Russians, at the Yalta Conference, to pull the wool over their eyes, at the expense of millions of freedom-loving people.

And so it is that the name of Berlin is still involved in world politics. Berlin was at the centre of two attempts to *make* world history, and Berlin and half of Europe were wrecked in those attempts. Now it is the fate of the Berliner, to *suffer* world history. But they are still in the middle of things, and that is somehow a consolation to them.

Berlin is still, or perhaps better, *again*, an impressive city. Its splendid layout of former times, a number of stately new structures, the old energetic spirit and the curiosity of the people of Berlin, as well as their extremely keen political sensitivity—the result of living at the "frontier"—are cause enough for new hope. They even were romantic enough to save the steeple of the Gedächtniskirche, which was threatened with demolition because it had been diagonally split by a bomb.

There are railway stations in Berlin which have no rail connections any more. Berlin is divided between two hostile world powers, a unique fate never before endured by a cosmopolitan city. There is only one other city that is divided like Berlin, and that is Jerusalem.

Babylon saw its greatest period after it had been completely destroyed by the Assyrians; Athens after having been demolished by the Persians; Rome after Hannibal threatened to conquer it. Perhaps a similar miracle will happen in Berlin.

THE BABYLONIAN TOWERS OF NEW YORK

ABOUT 1500, when the Spaniards invaded the New World, on that continent existed two cities that were, for those days, tremendous— Tenochtitlán and Cuzco. And in 1800 only one metropolis could be found in the entire Western Hemisphere—Potosí, a city that very few people today have ever heard of.

Human beings have inhabited the Old World for approximately 600,000 years, the New World for only 25,000. Mongolian tribesmen crossed the narrow strip of land which bridged Siberia and Alaska at that time, and wandered off into the empty, endless continent. After many thousands of years of migratory living, they reached the continent's southern tip, Patagonia and Tierra del Fuego. The early beginnings of their culture and their ways of building cities were quite similar to those of the Old World.

The oldest highly developed cultures in America, so far as can be determined, developed somewhere between 1,500 and 1,900 years ago on the southern shore of Lake Titicaca in today's Bolivia (as evidenced by the temple ruins of Tiahuanaco) and in what are now Guatemala and Honduras, both in Central America, where the Mayas lived. The Mayas had much in common with the Babylonians and Egyptians—artificial irrigation, building of cities, highly developed temple architecture, pictorial writing, and astonishing accomplishments in astronomy, mathematics, and computing calendars.

The Mayas did not live on wheat and dates as the Babylonians did, but on corn, beans, and potatoes, and they also grew pepper, cacao, and tobacco. As in the Euphrates and Nile countries, the Maya priests were also the temporal rulers of their city-states, of which the so-called Old Empire of the Mayas consisted, and even the cities' symbol was the same: the step pyramid.

The most magnificent sites of ruins from the early period of Maya culture are named today Copán, Palenque, and Tikal. We do not know their names as living cities any more than we know Mohenjo-Daro's original name. They have fallen into ruins and the jungle has taken over—nobody ever destroyed them. Research findings suggest that these rich cities were abandoned in perfect condition between A.D. 600 and 900, that they did not deteriorate

slowly, like Babylon and ancient Rome, but that they suddenly were depopulated—for reasons at which we can only guess. The hypothesis most frequently advanced is that the Mayas simply abandoned their cities whenever the soil became dangerously depleted, and moved to new fertile lands, where they began to build new cities, more magnificent than those they had given up.

The largest and most powerful cities were Mayapán, Uxmal, and most of all Chichén Itzá, where a wealth of temples and pyramids, together with priests' palaces, were built on large terraces. Below, the masses lived in mud huts. Much as in Memphis and Thebes, the cult buildings occupied a much larger area than did the dwelling places. From the eleventh to the thirteenth century architecture, sculpture, and ceramics, together with astronomy, reached a degree of perfection far superior to that of most of the cities of Europe, which was then slowly emerging from the Middle Ages. But it must also be mentioned that the Mayas were familiar with the custom of human sacrifice, even though they did not go to such extremes of cruelty as the Aztecs, their later neighbours to the north-west.
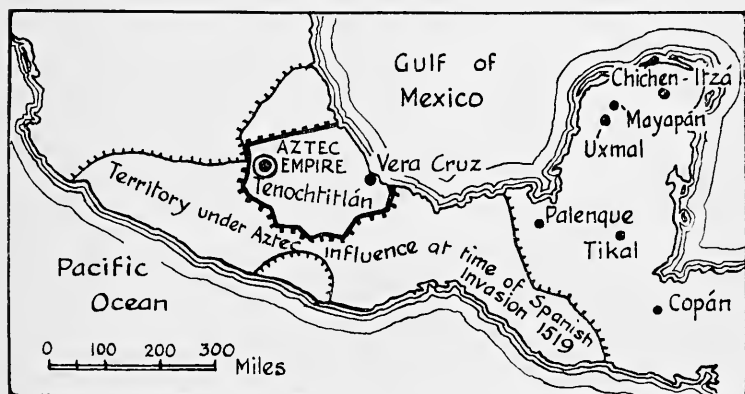
The Aztec empire.

The Spanish conquerors found the Mayan cities in a state of decay. A revolt, probably in 1441, by the people of Uxmal and Chichén Itzá against the domination of Mayapán led to a bloody civil war and weakened the New Empire of the Mayas so seriously that the Spanish conquistadors did not need to fight at all.

The Spaniards did have to fight, however, to achieve the destruction of Tenochtitlán, the capital of the Aztec empire. In that city, which was founded in the fourteenth century, there were 2,000 temples and 300,000 people—a population figure that was not

269

reached again in America until the nineteenth century. Tenochtitlán was built on a marshy island, about one and a half square miles in area, in Lake Texcoco, a salt-water lake more than 7,000 feet above sea level, and was connected with the mainland only by three narrow causeways, each with one or more gaps spanned by a drawbridge. An aqueduct brought fresh water to the city from other lakes near by.

On April 21, 1519, Hernando Cortez, commanding a fleet of eleven ships, landed on the Mexican east coast, where he scuttled his ships and prepared his campaign to conquer the land before him. But first he founded a city, the Villa Rica de la Vera Cruz ("Rich City of the True Cross"). He ordered a rectangular piece of land to be staked out and in its centre he marked the Plaza (the market place). Then he selected the sites for a church, the town hall, and the other buildings; but the first, and for the time being, only structure actually erected was the wall—and Cortez himself carried the first stones to be used for building it. Outside the wall he had another stucture set up, a gallows. Cortez proclaimed a city administration of four members, who reciprocated by bestowing upon him the title of Governor of the New Spanish Empire which was yet to be conquered.

At the beginning of modern times, but following an ancient formula, Cortez demonstrated how the Greek colonies in Asia Minor and in Italy, or the Phoenician settlement in Africa, may have been started; and, even more than that, he showed that the idea of the city can be realized even without houses and inhabitants. All that is needed is to fence off from Nature, herself shapeless, a certain space within which man wants to maintain his power and his law. The wall was sufficient—as a symbol of possession, of perseverance, of striking roots. Here we are and here we intend to stay.

Cortez detailed 150 men to remain as a garrison, and they later built their first shacks from timber that was left from the demolished ships. Today, 140,000 people live in Vera Cruz, the most important harbour on Mexico's east coast.

With fifteen horsemen, four hundred foot soldiers, and six cannons, Cortez marched up into the mountains, to Tenochtitlán. He was able to win as his allies a number of Indian tribes who had suffered under the harsh rule of the Aztecs. On November 8, 1519, the Spaniards entered Tenochtitlán without any resistance, a circumstance that was attributable partly to the Aztecs' fear, based on an old legend, that the Spaniards were somehow related to the god Quetzalcoatl, who was traditionally represented as white-skinned and bearded, and who was believed to have journeyed to the east after promising to return.

The symbol of Tenochtitlán was a tremendous temple pyramid.

At its top, the Aztecs offered their human sacrifices; there on stone altars the Aztec priests slashed the chests of their prisoners of war, ripped out the still-pulsating hearts, and burned them in honour of the sun god. Estimates of the yearly number of such slayings range from 20,000 to 100,000—more than the numbers of human sacrifices in Carthage. To the Aztecs, as to the Carthaginians, immolation was a laudable, logical, even necessary, act of propitiation to the gods on whose suffrance the whole community existed; but while the Carthaginians burned their own children, the Aztecs fought wars to obtain prisoners for their sacrifices.

After six days' sojourn in this city, the Spanish made Montezuma their captive, as hostage for their safety. When Cortez rushed back to the coast in order to deal with a newly arrived Spanish expeditionary group that threatened to become a troublesome rival, a revolt broke out against the Spanish garrison in Tenochtitlán. Montezuma, prevailed upon by the Spaniards to pacify his people, was fatally wounded by a stone that one of his enraged subjects threw at him. Suffering terrible losses, the Spanish fled to the mainland. Many drowned, especially those who had most heavily weighted themselves down with gold and jewels. Many others were made prisoners and eventually died under the stone knife of the sacrificing priest.

Several months later Cortez again marched on Tenochtitlán. He had his men assemble the parts of sailing vessels that they had brought with them, and then he began a siege on land and on water. The Indians defended themselves with tremendous ferocity; yard by yard, the Spanish had to fight their approach over the causeways; every house they conquered was levelled. On August 13, 1521, after ninety-three days of fighting, the great city of Tenochtitlán, "the most beautiful city in the world" in Cortez' own opinion, had ceased to exist. The conquest of America by the Europeans began with the destruction of its largest city. Upon the ruins, the Spaniards built Mexico City. Lake Texcoco turned into a marsh, into which today's city—with its five million inhabitants—is slowly sinking, to the despair of architects and engineers.

The second great ancient city of the Americas was Cuzco, in what is now Peru; it was the capital of the Incas, who ruled the largest empire on the continent. There, in the barren highlands at the astonishing altitude of 11,000 feet, higher than Mount Etna or any of the peaks of the Dolomites, lived 200,000 people—more than at that time were living in Europe's richest city, Venice. Their houses were built of sun-dried brick, wall against wall, along straight streets with rectangular intersections. In the centre of those streets were water troughs lined with stones.

The Indians of the high plains of Peru, with only copper axes, chisels made of bronze, and stone mallets, showed an accomplishment in stonemasonry that seems incredible to us. Like all the aboriginal inhabitants of America, they were unacquainted with wheel or with horses or oxen. Their beast of burden was the llama, which could not carry a man on its back. Yet, these Indians moved granite blocks weighing tons and having a diameter of more than sixteen feet, which they piled one upon the other to form gigantic walls, presumably by working laboriously for decades with primitive bronze levers as their tools. The blocks were smooth but not symmetrically hewn; nevertheless they were fitted together so perfectly that even now, after these many centuries, one cannot get one's little finger between the stones.

The tremendous temples and the houses of nobility and clergy were built of such stones. Surrounded by all these buildings was the large "Place of Joy". The great wonder of Cuzco was the Temple of the Sun; its stone walls were completely covered with gold and silver plate. It had a garden which contained solid gold replicas of stones, plants, and animals—not as an ostentatious display of wealth, but rather as a gesture of homage to the highest god, the sun, as whose earthly representation the shimmering metal was revered. The roof of the Sun Temple was thatched.

Cuzco—the name means "navel of the earth"—was the heart of the Inca empire, which extended 1,550 miles from today's Ecuador to the middle of present-day Chile; and, in a way, the city was a representation of this empire on a small scale. The northern part of Cuzco, for instance, symbolized the northern provinces, and whoever entered the city from that direction had to take lodgings in the city's northern section.

The Inca—which is the title of the ruler, rather than the name of the people—took many wives; but, as in ancient Egypt, his heir came from his marriage to his sister. The lives of the Inca and of the priests were devoted to serving the sun god; the lives of the common people were given to serving the Inca and the priests. The Indians harvested corn, potatoes, beans, and various other crops on artificially built and irrigated terraces. They worked in collective communities without individual freedom and actually constituted a classless society very similar to that of the Communists of today: there were no classes, except for the upper class.

In 1532 these poor, patient millions of people were subjugated by 168 men under the command of Francisco Pizarro, a fifty-five-year-old, illiterate, one-time swineherd. In a surprise attack the Spanish adventurers seized Cajamarca, a city located more than nine thousand feet up in the Cordillera; they took the Inca Atahualpa prisoner and finally executed him, even though the Inca had

actually paid the fantastic ransom that had been demanded for his freedom. He had had a room sixteen feet long and ten feet wide filled with gold as high as he could reach with the tips of his fingers; endless columns of carriers had brought the treasures from temples and palaces to their imprisoned ruler; and when it was discovered that the room was not yet quite filled, Atahualpa had added 700 sheets of gold taken from the Sun Temple at Cuzco.

To facilitate the division of the spoils, Pizarro ordered that the gold sheets, vessels, and cultic objects be melted down, and he gave each of his men a gold bar weighing from 50 to 100 pounds. Prices quickly adjusted to this kind of gold standard; for a doublet one Spaniard paid another a pound of gold.

One year later the conquerors invaded the capital city of Cuzco and immediately plundered it. In 1536 the Indians rose against the occupation, and in the year of fighting that followed, all that was left of the Inca capital were the walls of temples and palaces. In 1542 Lima, the city that Pizarro had built near the coast, became the capital of the viceroyalty of Peru, which until well into the eighteenth century comprised most of the Spanish region of South America.

The "Navel of the World" is now a small city of 65,000 people, with Spanish churches and monasteries and even a university. It is a barren and chilly place; its warmest month has temperatures similar to those that are normal for May in Central Europe. The railway connecting Cuzco with the coastal region seems almost more foreign than the Cyclopean blocks of stone which an annihilated culture has left behind as silent reminders for those who destroyed it.

In 1911 the American archaeologist Hiram Bingham found, about fifty miles northwest of Cuzco, on the eastern slope of the Cordillera, the remarkable walled city of Machu Picchu. There was no sign of violent destruction, yet it had been abandoned. The grass-thatched roofs of houses and temples were decomposed and mostly blown away by the wind, but not a stone was missing in the walls of white granite blocks fitted together in the Inca style, of the city walls, of the more than one hundred stairs in the lanes and the many artificial terraces. The only remains of human life in the city were the mummies which were found in snake-infested caves above the city.

It is probable that the silent city of Machu Picchu was the last refuge of the Incas who managed to hold out for thirty-nine years after Atahualpa's execution. Atahualpa's successors were his brother Manco Capac and the latter's three sons; the youngest of them, Tupac Amaru, in 1572 made a needless visit to Cuzco, where he was seized by the Spaniards and, after a perfunctory trial, was

put to death. It seems hardly possible that the fortress Machu Picchu could ever have been conquered: it is situated on a rocky clearing which on three sides drops about two thousand feet down to the raging rapids of the Urubamba River, while the approach from the fourth side leads over a dangerously narrow lane. We might not even now have any knowledge of Machu Picchu's existence, had the archaeologist Bingham not also been an ardent mountain climber.
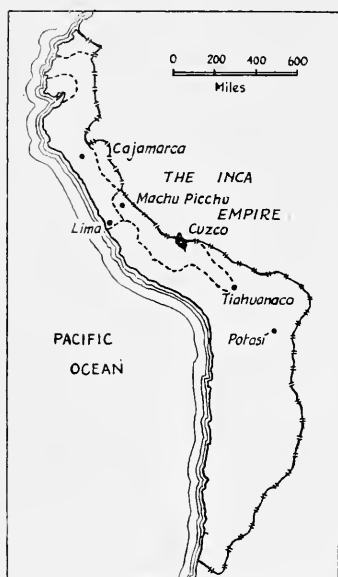
The Inca empire.

The walls built by the Incas are only about six hundred years old and have not had a chance to prove their durability over the millenniums, but nobody who has actually seen them will doubt that these walls will outlive even the pyramids. It is very likely that the walls of Cuzco and Machu Picchu will still be standing when everything that the Spanish destroyers of the Inca culture—or even all that the Europeans ever built—will have fallen into ruins.

Most remarkable of all the strange cities of early America was the one founded by the Spaniards in 1546: Potosí, in what is now Bolivia. One year earlier, Indian shepherds had discovered that the 15,360-foot-high Cerro de Potosí in the Bolivian Cordillera had deposits of silver. They sold this information to the Spaniards, whose greediness for gold and silver was common knowledge.

The Spaniards built a settlement for the Indian mineworkers at the foot of the silver mountain, at an altitude of 13,000 feet; and, since the silver deposits proved to be enormous, Potosí had 14,000 inhabitants after only two years. In 1611 there were 160,000. For two centuries, the largest city of the New World was to be found in this completely barren region of the Bolivian highlands where the sun is broiling hot and the nights are ice cold.

The silver from this mountain, which was honeycombed with mine shafts, flowed to Seville and Madrid, most of it by what was then the small town of Buenos Aires, on the Rio de la Plata. Endless llama caravans made the two-way journey, which took several weeks to complete, carrying provisions to the mountains and silver to the coast. Along the route were halts, where supplies could be

replenished. One of these was Córdoba, which by 1613 boasted a university and soon became the third-largest city in the New World.

In 1803 Alexander von Humboldt estimated the value of the gold and silver that the Spaniards had, up to that time, taken out of their American colonies as one billion pounds sterling. But early in the nineteenth century the silver deposits at Potosí were exhausted, and the city gradually declined. Today Potosí has a population of 50,000, many of the people engaged in the mining of tin.

San Francisco, in California, was built on gold. In 1848 it had 600 inhabitants. But in that year gold was found in California, and the wagon trains of adventurers began rolling into the new wonderland. In 1850 San Francisco's population had risen to 30,000, and San Francisco was equal in size to Chicago. Chicago climbed rapidly, to reach 1.7 million in 1900. Los Angeles in that year achieved the status of a metropolis, and today it is the second-largest city in America. The explosive growth of cities in the United States over the past 150 years is without parallel in city history.

One of the causes for this development was the unprecedented migration of 45 million Europeans who came to settle in the United States. A considerable percentage of them remained right in New York, the great port of entry. Others established themselves in more remote sections of the vast country; but, like most civilized peoples, most of them concentrated about chosen centres and thus created overcrowding even though the environment and agricultural facilities made this completely unnecessary. Then, with their cities, their railways, and their gunpowder, they conquered half a continent to whom all three inventions were new and offensive.

After the War of Independence a dozen communities, including the great cities of Philadelphia, Boston, and New York, wrangled over the question which was to be the seat of government of the newly formed United States. The dispute was settled when Congress decided to build a new city as the nation's capital. Underlying this decision was the desire of Congress to acquire an area in which the federal government would enjoy unqualified sovereignty and thus prevent the repetition of an occurrence that in 1781 threatened the very existence of the nation. At that time the seat of the federal government was in Philadelphia, and there, when the building in which the Continental Congress sat was surrounded by mutinous soldiers, the federal government was unable to protect itself, and neither the city of Philadelphia nor the state of Pennsylvania saw fit to intervene.

The specific site of the new capital was chosen by George Washington in 1790, and it was for him that the city was ultimately

named. The young French engineer Pierre Charles l'Enfant, who had served as a major in the Continental Army, was commissioned to design the city. His emphasis on grand dimensions was criticized and he was forced to resign in 1792, but more than a hundred years later his plans were exhumed and the capital was developed largely in conformance with them. The government established itself in its new home in 1800. In the next year Thomas Jefferson, the first President to be inaugurated there, expressed the hope that some day the city would have 200,000 inhabitants; today it has two million.

But Washington's growth was very slow, especially when compared with that of Chicago during the second half of the nineteenth century and that of Los Angeles in the first half of the twentieth. In these two cities the real "gold rushes" took place; and even though their citizens did not search for gold with pick and shovel as did the people of San Francisco or the Klondike, they nevertheless found more of it.

THE LARGEST CITIES OF THE U.S.A.
(Population in thousands)

	1800	1850	1900	1960
1. New York	80	700	3,400	15,100
2. Los Angeles	1	2	102	6,700
3. Chicago	—	30	1,700	6,200
4. Philadelphia	41	121	1,290	4,100
5. Detroit	1	21	290	3,800
6. San Francisco	0.3	30	340	2,700
7. Boston	25	140	550	2,600
8. Pittsburg	1.5	68	450	2,400
9. St. Louis	1	78	580	2,000
10. Washington	14	40	280	2,000

The Klondike is a district in Yukon Territory in the farthest north-west of Canada, not far from the Alaskan frontier. In 1896 a vein of gold was found there, and during the next three years tens of thousands of gold seekers madly rushed to the area, which before and after that short period was uninhabited frozen land. Its principal mining town, Dawson City, grew out of barracks and shacks; with 30,000 inhabitants in 1898, it was one of the biggest concentrations of adventurers, criminals, and broken men the world has ever seen. In 1906 the gold vein was exhausted; today only about a thousand people live in Dawson City.

Even shorter was the "rush" in the Canadian town of Elliot Lake, on Lake Huron; it lasted only three years. The biggest

uranium deposits in the world were discovered there in 1954. In 1957 mining corporations built a hyper-modern and luxurious city for 25,000 people in this wilderness area. Half a billion dollars were invested in houses and uranium mines. In November, 1959, the United States Government announced that it would not renew its uranium contracts, which were to expire in 1962. Since then, Elliot Lake has been slowly wasting away. After Hiroshima and Nagasaki, the atomic age has now claimed a third city—in this case, its own creation.

The wealth of Chicago, on the other hand, has proved a lasting one, based on cattle, railways, and steel. In 1830 Chicago had 70 inhabitants; in 1837 it became a city. By 1870 its population had grown to 300,000; in 1871 it burned down. At the turn of the century, it was, with 1.7 million people, the fifth-largest city in the world, and the largest railway junction.

Chicago is the birthplace of two inventions of the greatest significance in the development of cities. One of them is the conveyor belt, which was used for the first time in 1870 in the tremendous slaughterhouses. By this mechanism each worker performs only one specific part of the production process, accomplishing his assigned task with much greater speed and perfection than would have been possible if he were responsible for several parts of the process. Henry Ford was the first to employ this method in a manufacturing industry; since the First World War it has been adopted in all industrial countries. Today even houses are being built by the conveyor belt method; built in standardized parts that can be readily transported, they can be assembled in hours, far from the place where they are made. Entire sections of American cities and Russian industrial cities are being built up with uniform houses, according to standard plans, using parts that come off the conveyor belt. In the area between Königsberg and Vladivostok the appearance of the cities is more and more dominated by two equally dismal products: the Soviet House of Culture, and the grey blocks of living quarters built of prefabricated standardized slabs of concrete.

The second invention that came from Chicago was the skyscraper, that towering office building which not only gives New York its famous profile, but also constitutes the hallmark of countless big cities all over the world, from Düsseldorf to Buenos Aires, from Moscow to Melbourne, almost as uniformly as the step pyramid once did in the Babylonian cities.

Houses 115 feet tall existed in ancient Rome. In Babylon a tower built of clay bricks reached a height of 295 feet, and a sandstone steeple in Ulm was 533 feet high. The height of a building made with supporting stone walls is limited by the amount of weight that

the structure can support. The cathedrals of Cologne and Ulm had practically reached that limit. The future of tall houses could be found only in strengthening the buildings with an inner steel structure of comparatively light weight, on to which the outer walls are fitted without having to function as supports. The first building with such a skeleton was seventeen storeys high and was erected in Chicago in 1885. Three years later New York made a beginning with eleven storeys, and even as late as 1900 it had no buildings with more than twenty floors.

It is hard to realize that the gigantic city on the Hudson—with 3.4 million people in 1900 already the second-largest, after London —was still as nearly level as Berlin. In 1614 the Dutch had established a trading post named New Amsterdam, and in 1664 the English took it from them and renamed it New York. At that time the city had 1,500 inhabitants.

New York proved to be an ideal harbour: the long, narrow island of Manhattan is situated on a bay that very seldom ices over and has comparatively little fog. After the Revolutionary War New York began a rapid rise and soon left Baltimore and Philadelphia, its former rivals, far behind. In the second half of the nineteenth century New York was a bustling city, crowded with noisy horse-drawn vehicles; along its streets one would not infrequently find wooden shacks right next to marble palaces. The millionaires of the new world power congregated here, and so did the failures from other places. In 1900 40 per cent of the nation's exports and more than 60 per cent of its imports were handled at this port.

Also in the year 1900 the city government of Chicago passed an ordinance which practically outlawed the skyscraper; it placed the limit of permissible height at 260 feet, and in 1914 it lowered this limit to 200 feet.

But there was nothing to prevent New York from becoming the city of towers, the cosmopolitan city with the sky line that this century is so fond of.

The city was divided into zones, and to each of these zones was assigned one of nine different sets of regulations pertaining to maximum building heights. The strictest regulation limits the height of a building to one quarter of the width of the street; the least stringent permits a height of two and a half times the width of the street, and in the centre of the city seven feet may be added to a building's height for each three feet by which it is set back from the building line. These and other complicated but by no means unreasonable rules, as well as advances made in the construction of elevators, and Manhattan's firm rock foundation—all these permitted full play to the ancient delight that a city takes in building towers; this delight took on an imposing and somehow a bit gro-

tesque form, at least at the southern tip of Manhattan and in the centre of the city.

Financial considerations, desired propaganda effects, and cosmopolitan arrogance contributed their share. The owner of the first modest skyscraper is said to have been motivated by the simple desire to get the best possible return from a twenty-six-foot-wide lot on Broadway. Indeed, that is still the most ordinary motive of the builders; to offset the tremendous land prices in lower Manhattan, rental units are piled upon each other in 20 or 50 or 100-storey buildings.

CITIES AND TOWERS
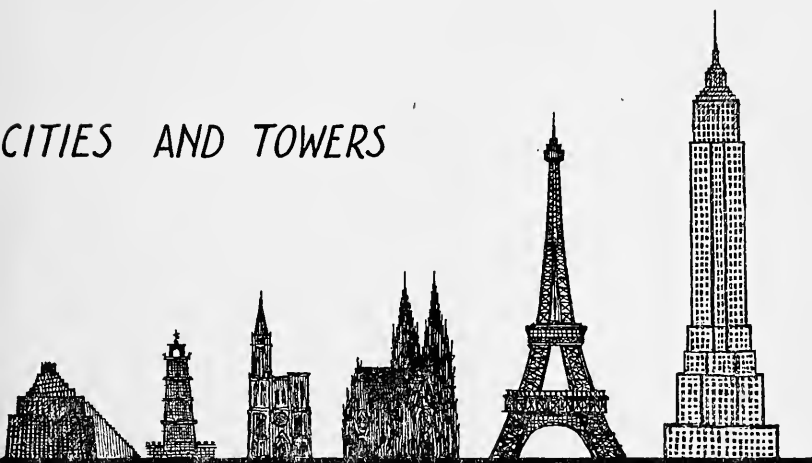
Babylon Temple Tower	Alexandria Lighthouse	Strasbourg Minster	Cologne Cathedral	Paris Eiffel Tower	New York Empire State Building
294 ft.	370 ft.	464 ft.	524 ft.	984 ft.	1248 ft.
600 B.C.	279 B.C.	1439	1880	1889	1931

There was another persuasive reason for the building of skyscrapers: A remarkably tall tower constituted a durable and effective advertisement for its owner. The first real skyscraper, the Singer Building, became such an advertisement for one of the largest firms in the world, the Singer Sewing Machine Company. This building, with 47 storeys and a height of 612 feet, completed in 1908, was the world's tallest office building, surpassed only by the Eiffel Tower among man-made structures. Today, the Singer Building, with its crestlike roof that reminds us somewhat of an old-fashioned sewing machine, is still listed among the world-famous skyscrapers, even though it is overshadowed by dozens of taller buildings.

279

In 1910 the Metropolitan Life Insurance Building, a tower of 50 storeys, and 700 feet tall, sprang up to take first place among skyscrapers. Rumour has it that this record height rankled Frank W. Woolworth, founder of the five-and-ten-cent chain store, and against the opposition of all his advisers he succeeded in getting the Woolworth Building up to a height of 792 feet. President Wilson himself dedicated it in 1913. By 1924 New York had ten skyscrapers of more than 30 storeys, and, as a result, more office space than could be rented. The fashion of towers turned into a deficit business.

New York continued building most eagerly during the years from 1925 to 1932, when the Great Depression had already hit the city. The Chrysler Corporation completed its skyscraper in 1930; with its 1,046-foot height the Chrysler Building exceeded the Eiffel Tower by 62 feet and finally brought the "Tower of Babel" prize to New York. But the Chrysler Building could keep that prize for only one year. In 1931 the Empire State Building was completed with 102 stories, a height of 1,250 feet, and an airship landing mast reaching up another 222 feet, where, however, so far no airships have ever tied up. For one year, 3,500 workers had piled up 308,000 tons of steel, concrete, and glass, ostensibly to build a practical office building, though actually there was little demand for its forty-one acres of floor space. Seventeen per cent of all New York offices were empty in 1931. Not until ten years after its completion was the building fully rented.

New York's third-tallest skyscraper, 60 Wall Tower (at 60 Wall Street), was completed in 1932; it has 66 storeys and rises to a height of 950 feet. Another edifice in the financial district, the Chase Manhattan Building, which was opened in 1961, is New York's fourth-tallest structure, with 71 storeys and a height of 927 feet.

Construction of the tremendous fifteen-building complex called Rockefeller Center was begun in 1931, and most of its units were completed by 1937. The principal unit in this unusual development is the 70-storey, 850-foot-tall RCA Building, now the fifth-tallest structure in New York, but the largest office building in the world, with some 69 acres of floor space. The entire project covers a land area of twelve and a half acres and includes several comparatively low buildings between the skyscrapers. Among the attractions of this "city within a city", as it has been called, are a number of new-day "Hanging Gardens"—landscaped areas, including flower beds, hedges, and even trees, on the setbacks and on the roofs of the lowest buildings. Its architectural style, with its emphasis on straight lines and massive simplicity, gives it an air of dignity and authority.

Another of the impressive structures that shape the skyline of

New York is the United Nations Secretariat Building, 39 storeys, 505 feet tall. Its east and west façades are surfaced with blue-green glass and aluminium and contain a total of 5,400 windows; its comparatively narrow north and south walls are windowless planes of solid grey Vermont marble. With its uncompromising perpendicular lines it presents the appearance of a gigantic, purposeful monolith.

Opinion on the desirability of skyscrapers is divided. For some years before and after the Second World War there seemed to be little enthusiasm in New York for very tall buildings, and to date there seems to be no plan to outdo the Empire State Building in height. But recent activity shows a renewed interest in *large* buildings; in 1961 construction was scheduled to begin on what is to be the world's new largest office building, the Pan-American Building, which will tower over Grand Central Terminal in mid-Manhattan.

Since land values are not likely to decline, it seems logical that more tall buildings will be built—to obtain as much rental space as practicable out of each building plot. But real-estate experts have indicated that conditions discourage attempts to set new records for height. The requirement of setbacks, for instance, leaves too small a rental area on the topmost floors to make the greater height profitable. Resolving that difficulty—as, for example, by building from an exceptionally large base—would entail exceptionally large financing and renting problems.

It is possible, of course, that the relative values of land, construction costs, rents, and other factors may, in time, be altered. And it is possible that for special considerations the ordinary measurement of cost and profit would be set aside. It is conceivable, for instance, that the publicity, prestige, or advertising value inherent in ownership of a new "tallest building in the world" might be deemed worth the risk, or even the certainty, of intrinsic loss. It is sometimes quite difficult for the disinterested observer to weigh the soundness of such values.

Woolworth, Chrysler, and Rockefeller quite conceivably wanted only to publicize themselves; but what they achieved most of all was publicity for New York. The towers that these men built proclaim: We are the mark of distinction of New York, of the greatest banking and commercial centre of the world, of the city that is *the* city of this century. There is nothing that can compare with New York.

And indeed, there is really nothing. And since the Americans have now been rich for a good long time, so that one cannot rightly call them *nouveau riche*, they are no longer ostentatious, but leave that to the upstarts of today: to the Russians, or to the Brazilians, the people of Milan and in some instances to the Germans. After

all, a city does need towers, as, so to speak, exclamation points. The people of New York may have put a few exclamation points too many after the name New York; but when arrogance is coupled with such heaven-storming daring, the impression is overwhelming. And in the long run we may look upon the towers of New York as propaganda for our century, which manifests itself in its most vital city.

THE EARTH TURNS
INTO A CITY
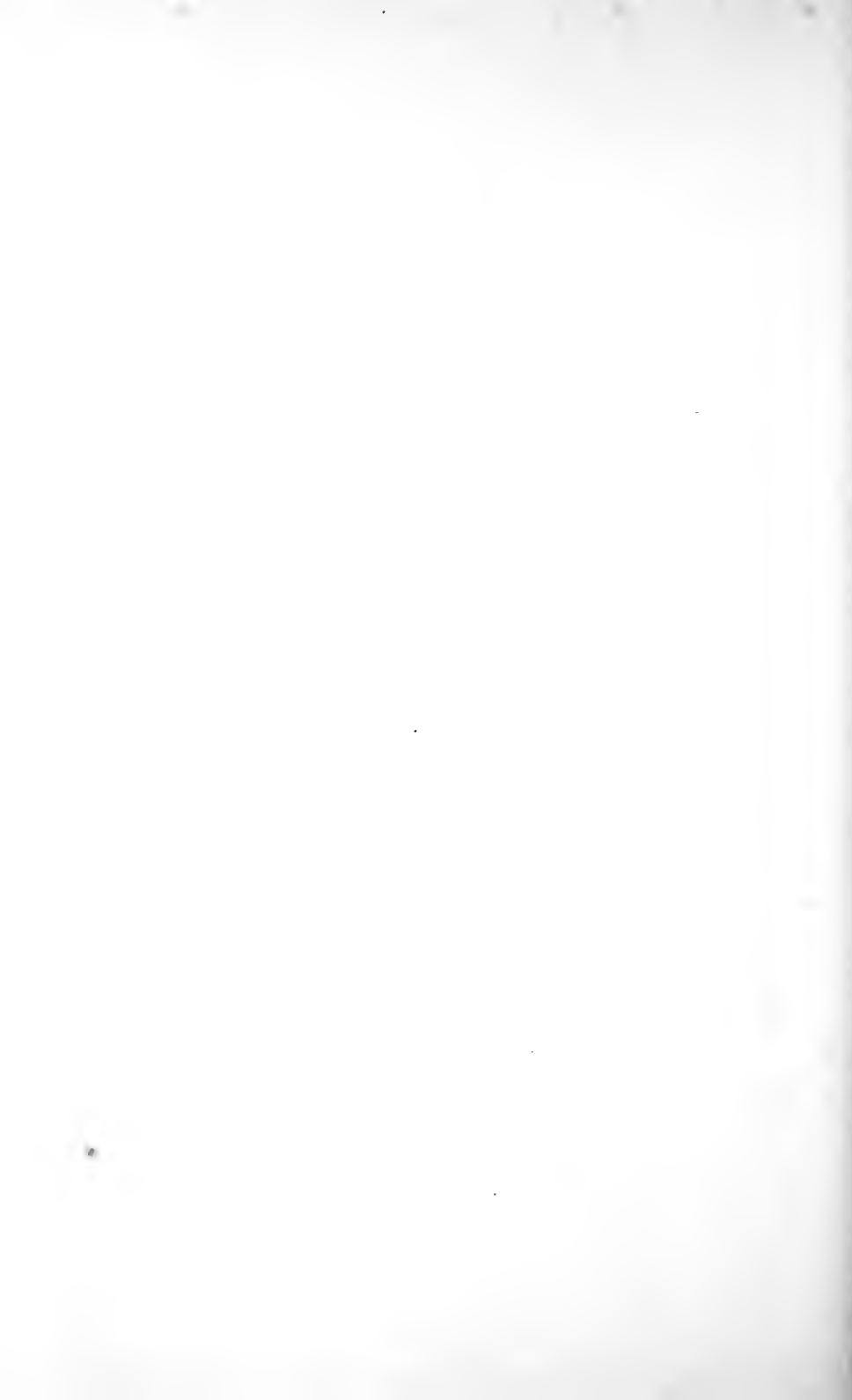
Chapter 1

FROM DUNEDIN TO MURMANSK

THE EARTH was first conquered by man, and then by man's most impressive creation, the city, the 7,000-year-old newcomer to the historical scene. This process was very slow at first, but as time went on accelerated.

As recently as four hundred years ago there were many large regions on this earth without even the semblance of a settlement— North America north of Mexico, South America except among the Incas, and Australia. In our day one has to travel into the polar regions, into the vast deserts, or into the tropical forests of the Amazon Basin, if one wants to find great stretches of land without cities. Broiling heat and biting cold, malaria-infested swamps, and arid land do not prevent the building and expanding of cities.

Cities exist in the Cordilleras of South America and Mexico, where millions live at an altitude of up to 8,550 feet; there are metropolitan cities as high as 12,143 feet and mining towns even above 13,127 feet. In Cerro de Pasco in Peru, 14,111 feet above sea level, in a region of barren desert and thin, icy air, more than 20,000 Indians and mestizos are mining copper, gold, and silver. The high altitude that, in tropical countries, seems to offer refuge from the heat can be acutely uncomfortable above, say, 8,000 feet. In La Paz, the Bolivian capital 12,143 feet high up in the Cordillera, few Europeans can endure the rarefied atmosphere for any length of time—if, indeed, their hearts and lungs have not already given out when they arrive.

But aside from the vast sand deserts and ice regions, the earth is now inhabited everywhere. Iceland, Lapland, Tibet, and Siberia offer no easier living conditions than the high Cordilleras, but human beings live there nevertheless. If they have reached a certain stage of civilization, or if civilization is imposed on them, or if, on the other hand, other cities need oil or copper, or an outpost for trade—then people congregate in cities, be the air as humid and heavy as in a hothouse or almost too thin to breathe, whether scorching sun or icy storms oppose them.

Thirty thousand people live in the Tibetan capital of Lhasa, 11,832 feet high, where temperatures of 40 degrees below zero are

Towns of the world's extremities.

not uncommon in wintertime. In January, Yakutsk, the largest city of eastern Siberia, has a mean temperature of 47 below zero. Fur trappers and traders were so pleased with one of the coldest spots on earth, Verkhoyansk (north of Yakutsk), with a mean of 58 below zero for January and lowest readings of 90 below, that they founded a settlement there in 1638; today it is a city with a population of 10,000. A mean of 4 below zero for the month of January was no deterrent to the growth of metropolitan cities with European characteristics, as the city of Winnipeg in Canada proves.

On the other hand, the mean temperature of the hottest month in the city of Delhi, with more than a million inhabitants, is above 91 degrees; in many cities of western Asia and India a mean of more than 86 degrees and readings of 120 degrees in the shade are not uncommon—in cities of the Sahara Desert, such as Timbuktu, these readings are even frequent. In Punta Arenas at the southern tip of Chile, and in many places of the Norwegian coast, hardly a day goes by without a drizzling rain, while on the other hand sometimes a few years elapse between one rainfall and another in Antofagasta, the nitrates port in northern Chile. All this does not bother man. He is at home everywhere. And so is the city.

One metropolis exists even north of the Arctic Circle: the city of Murmansk, at 69 degrees north latitude, where for five weeks in winter the sun does not rise and for five weeks in summer it does not set. The city, which today has a population of 230,000, was built during the First World War for strategic reasons; during the Second World War it was the great supply harbour and reservoir for American and British shipments to the Soviet Union.

286

There are a few settlements still further north in the northernmost parts of Norway, in Siberia, Canada, Alaska, and Greenland. The most northerly settlements that may be called towns are the mining centres Longyear City and Barentsburg in the Spitzbergen archipelago at 78 degrees north latitude.

The most southerly city on earth, on the other hand, is surrounded by gentle and fertile pasture land—Dunedin, a port city on South Island, New Zealand. It has a population of 100,000 and contains a university and two cathedrals. In appearance and character it is almost a typical English city; in geographical position, however, it is farther from the motherland of big cities than any other metropolis on earth. But Ushuaia, in the Argentinian part of the island of Tierra del Fuego, is generally considered the most southerly city of any size on earth; it is a former penal colony and has two thousand inhabitants. A little farther south is the Chilean naval base Puerto Williams on Navarino Island, and still farther south are the research stations that were started by the Americans and Russians in 1957 as part of the projects of the International Geophysical Year undertaken in the Antarctic region, the last continent without cities.

The features of all these cities, north or south, in cold climate or hot, begin to resemble each other more and more. It is not surprising that many cities, and especially the smaller towns in the New England sector of the United States, in Canada, in Australia, and in New Zealand can hardly be distinguished from their British models, or that many Latin American cities have Spanish or Portuguese characteristics. But even the old tenement sections of Berlin, Vienna, Zurich, and Brussels are confusingly similar. The horribly involved style of pompous decoration that held sway at the end of the nineteenth century has created almost identical opera houses, bank buildings, and palaces of justice in Paris and Vienna, in Berlin and London, in Stockholm and Munich.

The skyscraper has conquered the cities of the twentieth century, and the towers which herald a city from afar resemble each other to an almost absurd degree. It is not difficult to photograph a piece of scenery in Mexico, Sao Paulo, or Milan that even an experienced globe-trotter will find hard to distinguish from similar shots taken in Buenos Aires, Melbourne, or Madrid. The moderately high apartment and office buildings that became fashionable after the Second World War in Central and North Europe, look very much alike, whether they happen to be in Stockholm, Berlin, Hamburg, Cologne, Frankfurt, Munich, or Zurich. In regard to structure and style, there are only negligible differences between any two of hundreds of large cities in our time.

The sharp differences are *within* the individual city. The tall houses of Casablanca in Morocco and of Baghdad in Iraq vary only slightly; the gleaming white skyscrapers of these cities and the near-by adobe huts and wretched shacks have nothing in common. Even in Central Europe there are greater contrasts within the cities than there are between one city and the next: one and the same boundary line may encompass refugee camps, tenement buildings, luxurious villas, sagging little houses from the Middle Ages and the glittering display windows in the arcades where wealth, snobbery and advertising slogans abound.

The factory chimneys and drumlike gasholders are common sights in most of the industrial cities of Europe and America. Where European and American industries have invaded a foreign continent, some of the most unattractive city developments have resulted—the tin-can cities, so called because many of the natives who flock to the new installation in the hope of finding employment build huts out of discarded materials, such as gasoline drums, odd pieces of corrugated sheet metal, wooden crates, old tyres, and rags. Such tin-can cities mushroom in Asia, Africa, and Latin America, wherever an oil well is being drilled, a uranium deposit has been discovered, or an airfield is being laid out. They disfigure such cities as Johannesburg, Lagos, Casablanca, Karachi, and many other large cities along the borderline between Europe and misery.

A number of Oriental cities that so far have been spared these creations out of trash are being corrupted in other ways by European city culture—be it in the shape of the tall, gleaming white houses which rise out of the congeries of mud huts, or by a forest of television antennas which grow on the roof tops of the ancient Japanese Imperial City of Kyoto. A particularly strange hybrid city is the capital of Saudi Arabia, Ryadh, where King Saud, who made billions of dollars from his country's oil, bars his residence to foreign diplomats and planes (foreign embassies are located in the port city Jidda, more than 500 miles away), keeps a thousand American motor cars in his garage, and cools his palace city with the world's biggest air-conditioning installation, made in the U.S.A.

And yet, one can still find resistance to our Anglo-Saxon era's vogue of the city—as, for instance, in many Oriental cities, where car parks accommodate automobiles and camels alike, or where oxen are used to pull broken-down trucks; and in the colourfully decorated clay palaces in such old cities as Kano and Katsina, in Nigeria; or in the mosques which Islam continues to build. In every country in Europe, even in England, we can find small towns or sections that have preserved the romance of an earlier time. Bruges

is one example; others are Tarascon in the south of France, San Gimignano in Tuscany, and Alberobello in Apulia, where many *Trulli* can still be found—round, windowless stone houses consisting of one room and a high conic roof, reminders of a manner of building that may have been customary in Jericho about 7,000 years ago. Another example of resistance to standardized housing developments and gasholders are the defiant walls which many cities have still preserved; to name just a few, Carcassonne and Avignon in the south of France, Tarragona in Spain, and Dubrovnik in Yugoslavia.

A number of old university towns have preserved their charm and even a little peace and quiet—Tübingen, for instance, whose city council in 1960 decided to leave the old part of the town completely untouched; and Oxford; and the town of Coimbra, in Portugal, with its famous university.

But many a friend of old-town idylls will find his patience sorely tried when in Rothenburg ob der Tauber he finds the faithfully preserved medieval scene cluttered up with caravans of sightseeing buses, or when on the Grand Canal in Venice he has to wait for hours before he can take a picture of the gondolas without a motorboat to spoil it.

The existence of small towns that have achieved world renown raises the question, How is the term "cosmopolitan city" to be applied? In our time a cosmopolitan city is usually understood to be one of more than one million inhabitants; but this may be rather too arbitrary, because it is quite obvious that Frankfurt-am-Main, with 650,000 people is more cosmopolitan than such Asiatic cities as Chengtu, Pusan, or Surabaya, even though millions live there. If one would define a cosmopolitan city as a place whose radiance spreads out into the world, and a place where the world congregates (and such a definition would seem to make more sense than mere statistics), then Oxford would rightly have to be called a cosmopolitan city as well as Princeton, New Jersey, where Albert Einstein taught, or Weimar in Goethe's time, and perhaps even the German university town of Göttingen.

It is actually nothing new that a cosmopolitan city may be small. About the year 1500 Florence had only 60,000 inhabitants, and during the period of the Fuggers Augsburg had only 40,000. It is true that the cities in those days were smaller; but ever since antiquity there have existed settlements of scarcely more than village size which had a cosmopolitan significance—and perhaps they ought to be called "cosmopolitan villages".

In ancient Greece, Epidauros developed from a sanctuary of Asclepius, the god of healing, into a splendid spa, with baths and rest cures, gymnasiums and theatres. Badenweiler in the Black

Forest in Germany was a famous spa during the Roman empire. In the eighteenth century the little town of Bath in southern England became the meeting place of high society due to the curative mineral springs, its picturesque location, and, later on, its magnificent architecture. (In 1705 it had an orchestra, which probably was the first therapeutic orchestra on earth.) During the nineteenth century the small towns of Karlsbad and Baden-Baden (the latter a favourite setting for Russian novels) also achieved cosmopolitan significance.

In our day St. Moritz could be given this definition, and some of the resorts on the French and Italian Rivieras; we might also include a number of night-club towns built to please the American taste—Acapulco in Mexico, Miami Beach in Florida, Las Vegas in Nevada, and, in the same state, Reno, the largest divorce-processing plant, which calls itself the "biggest small town on earth". And, finally, one might also speak about "temporary cosmopolitan cities". There is Salzburg, which assumes this rôle each year during Festival time, and Oberammergau, which emerges every ten years.

Only a few cities have been successful in keeping aloof from the avalanche of European and American influences—in most cases by making admittance to their domain difficult for foreigners, or even by denying them access altogether. One of these places is Sana, the largest city in the desert land of Yemen at the southern tip of the Arabian peninsula; it is built on a rocky plateau 7,500 feet high, is closed off by high walls, and has 60,000 inhabitants. East of Sana are the ruins of Marib, the capital of the Sabaeans whose land was made rich and fertile through artificial irrigation. The Sabaeans were the subjects of the Queen of Sheba who is mentioned in the Bible.

East of Yemen is the land of Hadramaut, a group of sultanates within the British protectorate of Aden, which are set apart from the world as much by the desert as by their Islamic fanaticism. There the Arabs have built fortress-like cities on mountain plateaus, cities that consist of houses that are from six to twelve storeys high. The largest of these fortresses are Sejun (Seyun, Saiwan) and Shibam. The latter is said to have withstood a siege of sixteen years during a native uprising in the nineteenth century. One can hardly hope to find more impressive ruins from the early days of city culture.

Also untouched by European influences are most of the cities that are holy to the faithful of non-Christian religions. Approximately 300,000 of the believers every year go on a pilgrimage to Mecca, the birthplace of Mohammed and religious centre of the Islamic faith, in order to kiss the Black Stone embedded in the

inner wall of the cubically shaped Kaaba. Mecca is forbidden to all non-Mohammedans, and so is Medina, the city where Mohammed is entombed. The other Islamic holy cities are Kairouan, in Tunisia, and Jerusalem, which is also revered by Christians and Jews.

The Abyssinian Christians undertake their pilgrimages to Aksum, which in antiquity was their country's capital and where, according to their belief, Moses' tablets of the Ten Commandments are kept. The great places of pilgrimage for the Hindus in India are Allahabad, Mathura (or Muttra), and, most outstanding among them, Benares, the city of 1,500 temples along the holy river Ganges. More than a million Hindus go there every year, to wash away their sins, or to cremate deceased members of their families on the temple steps and later to strew the ashes into the river.

A sacred city is an exception nowadays, a fact which shows how much the character of the cities has changed. Most of the oldest towns grew around a temple; indeed, often they were actually no more than a backdrop for the sanctuary. In the Middle Ages many European cities with distinctly mundane characteristics were still very much overshadowed by their cathedrals, which even now reign so supremely over cities like Cologne and Ulm, Strasbourg and Rheims, Amiens and Rouen, Salisbury and Seville.

But in most modern cities the distinctive features are the tall buildings and the factory chimneys; in Communist model cities like Stalinstadt in Germany's East Zone and Stalinvaros in Hungary, churches are no longer built at all. A number of "forbidden cities" still exist, but they are forbidden mainly for military reasons, as in Oak Ridge, the nineteen-year-old centre of America's atomic research, and in numerous cities in the Soviet Union.

There are cities that are blackened by the constant clouds of industrial fumes, others that are happily untouched by soot; and then there are those that would be only too glad if a factory with smokestacks would start working there. In Washington there are no winding roads and narrow alleys, while on the other hand the houses in many Algerian oasis towns are so tightly squeezed together that palm trunks have to be propped up across the labyrinthine path between them, to prevent them from collapsing. There are still some metropolitan cities which cannot be reached by rail, as for instance Kabul in Afghanistan, Katmandu in Nepal, and several cities in the interior of China, and then there are those which developed only because a railway needs a terminal station. The Canadian Pacific Railroad in 1885 reached Canada's west coast where there was a sawmill; today this spot is the site of Canada's third-largest city, Vancouver.

Kabul and Vancouver have one thing in common, however—and

they have it in common with Asunción in Paraguay and Petropavlovsk on the Kamchatka peninsula, as well as with Cologne and Hiroshima—they are growing. Even according to official statistics, they are growing rapidly enough, but in reality they are expanding much faster than official figures indicate. Many of these cities are already so tremendous and so boundless that it becomes difficult to ascertain which actually is the largest city.

THE "LARGEST" CITY ON EARTH

TRAVELLING ON the Nordpfeil ("Northern Arrow") express from Stockholm to Narvik, one passes through the northern part of Sweden and looks out upon one of the most barren and sparsely settled countrysides of the European continent. That is Lapland. North of the Arctic Circle the evergreens gradually disappear, and only meagre little birch trees provide a few dabs of colour in the brownish wilderness of mountains and lakes, where during the summer mosquitoes are in command. If one asks the name of these parts, the answer is Kiruna.

Some time later, a snow-covered mountain peak appears to the left on the horizon—it is Sweden's highest mountain called Kebnekaise—and one is told that this too is in Kiruna. Half an hour later the train stops at the railway station of a small town; above its friendly, colourfully painted houses rise two high mounds of rubbish, and the name we read at the station is Kiruna. The stranger is beginning to feel somewhat puzzled; he had come to believe that Kiruna was a region or a province, and now it appears to be a small industrial town.

After leaving the railway station of Kiruna, the express roars for an hour along the shore of the Torne Träsk, an icy, foaming lake, and when the train before crossing the Norwegian border reaches the spot where the Torne Träsk vanishes into the dark gorges of the mountains and the stranger inquires once more where he is, the answer again is Kiruna.

What then, for heaven's sake, is this Kiruna? the stranger will finally ask. And the answer is: The entire wilderness which we have been passing through for the last two hours is called Kiruna, because Kiruna is vast. In fact, it is the largest city on earth.

This strange creature of a city came into existence because Nature saw fit to embed a sheetlike deposit of the most excellent iron ore in the desolate land of the Lapps 93 miles north of the Arctic Circle. This layer of iron ore, which rises from unfathomed depths in an almost vertical direction and is embedded in brownish rocks, forms two hills; between them lies the centre of Kiruna, whose work is largely responsible for Sweden's being the biggest iron ore exporter on earth.

In Kiruna proper there is a chronic housing shortage, because mining operations and the demand for workers have been increasing at a much faster pace than the number of available dwelling units. Hundreds of workers employed by the mining company cannot find lodgings in the actual town of Kiruna, which has 18,000 inhabitants; they live as much as 63 miles away from their place of work, in settlements scattered all over the Laplandian wilderness.

Besides their long daily journeys to and from work, they had a number of other inconveniences: they did not have urban rates for railways and postal services or wage scales commensurate with city standards, nor did their small and destitute communities share in the revenues deriving from the heavy taxes paid to Kiruna by the mining company. It was impossible for Kiruna to provide housing for all the workers in a short period of time; but something else could be done—Kiruna could extend to them the benefits of urban living by simply extending the city limits. If the workman could not move into the city, the city could be moved out to the workman. Without much ado, in 1948 the outlying sectors in which Kiruna workers had had to find their dwelling places were declared part of the city.

And so "the largest city on earth" was created at the conference table. It is 5,088 square miles in size, almost as large as the German province of Schleswig-Holstein, or seven times the area of London. But while 2.3 million people are living in Schleswig-Holstein, the "giant city" of Kiruna has only 25,000 inhabitants. This means that there are 4.5 persons to every square mile in Kiruna, which represents a population sparsity that is exceeded only in countries like Australia and Mongolia. Except for the Polar region, there is no area in Europe so thinly populated as the "largest city on earth". Kiruna includes Sweden's highest mountain and Torne Träsk, which is four times the size of the Chiemsee in Bavaria. The rapids of Torne River gush and roar for a stretch of more than 37 miles through the city, in whose outlying sections many wolves and bears are killed each year.

Kiruna is interesting because it serves as an illustration, for people interested in population statistics, that official boundaries are not necessarily related to the actual size of a city. In Kiruna the authorities have made the city a thousand times as large as it actually is. Much more frequently the responsible authorities will ignore the fact that a city has outgrown its official boundaries. Thus, Kiruna is an exception; but it is not the only one. Brasília has allowed itself a great deal of room, and so has the Australian city of Canberra.

Canberra was "invented" in 1903. Both Sydney and Melbourne, each with half a million inhabitants, coveted the privilege of becoming the capital of the new Commonwealth of Australia. To avoid

favouring one at the expense of the other, Parliament staked out a piece of the land between the two cities and named it Canberra. However, the cornerstone was not laid until 1913, and the Parliament Building was not dedicated until 1927. It seems that no one was able to enjoy this synthetic city very much. And that is how matters stand.

THE LARGEST CITIES ON EARTH
(according to the expansion of the official city areas)

	Expanse in square miles	Inhabitants
1. Kiruna ..	5,088	25,000
2. Brasília ..	2,258	120,000
3. Canberra ..	965	40,000
4. Tokyo ..	782	9,700,000
5. London ..	721	8,400,000
6. Los Angeles ..	470	2,500,000
7. Rio de Janeiro	467	3,000,000
8. Hong Kong ..	391	2,800,000
9. Brisbane ..	385	570,000
10. Shanghai ..	358	7,400,000
11. Berlin	341	3,290,000
12. Moscow ..	338	5,800,000

The land provided for Canberra had been generously measured so that there would be adequate space for housing the residents who might eventually come in droves to the new capital. In fact, the space provided is twice as large as Los Angeles, the very spacious city of millions. But to date, only 40,000 people have moved to Canberra, and so the "third-largest city on earth" proves to be another village with a touch of megalomania. According to their area, these two giant villages, Kiruna and Canberra, together with Brasília precede the three largest normal cities, namely Tokyo, London, and Los Angeles.

Since it is the practice to establish population figures on the basis of official area, and since that official area seldom reflects actual size, it stands to reason that such figures must be considered quite arbitrary. One listing of the largest cities, for instance, places some of the actually largest cities at the very bottom of the list. But even if one were to accept the official city area, the number of inhabitants would still remain a more or less unreal figure. By the time a census figure is published it is already out of date, because of the time lapse between census taking and publication. Then, too, even in Germany census-taking methods cannot completely eliminate the errors caused by intentional misrepresentation on the part of the citizenry.

The city fathers of Munich ran into this problem in 1957, when they excitedly anticipated the one millionth citizen: the happy event occurred several months later than expected, because it was found out that the census of 1950 had come up with an inaccurate figure. How was this possible? Well, at that time control of living space was in full swing, and many people (and probably not only in Munich) got the glorious idea of naming relatives or friends as among the occupants of their apartments, while those people in reality were living somewhere else. Thus they created the impression that their apartments were overcrowded and they felt safe from the grip of the housing department. The result was that Munich had several thousand more inhabitants on paper than in reality.

Having voiced all our reservations, let us nevertheless find out which cities, according to official statistics, are the most populous.

First place is held not by New York, but at present by Tokyo with 9.7 million people within its official city area. In 1942 the Japanese capital already had 7.8 million inhabitants, but by the end of the war there were only 3.5 million people left. American detonation and incendiary bombs had caused much greater destruction in Tokyo than the atomic bombs in Hiroshima and Nagasaki; there were 250,000 dead and 800,000 houses destroyed in Tokyo, but the city grew soon again, and quite rapidly. With 8.4 million in 1957, it took first place among the cosmopolitan cities, surpassing even London.

The British metropolis, for seventy years the largest city in the world, now with its 8.4 million inhabitants has to be satisfied with second place. London makes the task of the statisticians particularly difficult, because it has two official areas: the *County of London*, the administrative entity, which has only 3.4 million inhabitants; and *Greater London*, the official police district comprising both the County and its environs, which has 8.4 million people. But even this "Greater London" does not represent the entire city. Like their counterparts on the Seine, the authorities on the Thames are lagging behind actual developments. The real city of London, one might safely say, includes the entire area served by the railroad and omnibus facilities under the London Transport Executive, and within this area live approximately 10 million people.

In the light of the foregoing, one might ask why it so frequently happens that the real facts are so inaccurately reflected in statistics. One reason might be that the rapid growth of today's cities, their close economic interrelation with neighbouring cities, and the blending of entire groups of cities into one continuous ocean of houses simply overtaxes the adaptability of a city department. But human, financial, and political considerations also seem to be very weighty factors.

Human considerations: Whatever their reason, the people of Fürth just did not wish to become Nurembergers, even though any stroller out for a walk would be hard put to it, should he try to distinguish exactly where one city ends and the other begins, had they not been symbolically separated by official name plates. And what suburban mayor would favour his community's incorporating into a near-by metropolis when this would mean losing his office?

Financial considerations: Many suburbs have a considerably lower per-capita tax yield than the city proper, which is the site of banks, insurance companies, and factories. The district of Bremen, for example, after the Second World War, vetoed the proposal to establish a link between the cities of Bremen and Bremerhaven, because the corridor that would thereby have been created, contained rural communities of negligible financial strength, which would have had to be included in this merger.

Political considerations: The merger of Berlin with Charlottenburg, Spandau, Schöneberg, and all the other cities that long had melted into one, failed to materialize before 1920, partly because of similar financial considerations, but even more so because the city magistrate as well as the Prussian government had apprehensions that a Greater Berlin might become "red" with the incorporation of the workers' suburbs, and that was deemed unsuitable for the Emperor's capital. This viewpoint was no longer valid when in 1920 the small official city of Berlin as well as the whole of Prussia had a Social Democratic government, and so the city limits could then be extended. There were similar official misgivings about a Communist majority in Paris, in the event of an official merger of the workers' suburbs with the central city.

If a city spills over into neighbouring states, as well as into neighbouring communities within its own state, as the city of New York does into the states of New Jersey and Connecticut, then there is no prospect that the official city limits will coincide realistically with the actual expanse of the city into the neighbouring states. Official New York has 7.7 million inhabitants. It never was as large as London and today takes third place, after Tokyo and London. And yet 15.1 million people are living in the Greater New York area. This tremendous concentration of population and houses includes hundreds of independent cities and towns beyond the official boundaries. It covers an area of 2,610 square miles, which is actually four times the size of London and nearly half that of Kiruna.

Most large American metropolitan cities, in collaboration with the cities and towns near by, have set up planning commissions which attempt to co-ordinate existing public facilities and to anticipate future needs and problems concerning highways, water supply,

transportation, electricity, industrial development, and other common interests. Such planning commissions, then, concern themselves with what is called the metropolitan area, and in the statistical measurements of such an entity we have a more realistic reflection of a city's size and population than is available in the figures compiled within official city limits. And this is true despite the fact that large tracts of land that are not yet developed or properly considered part of the city may be included in the metropolitan area, and that sometimes a neighbouring community will be excluded because, for political or other reasons, it refuses to join the collective planning endeavour.

In the compilation of population statistics there are four entities that may be used as the basis for computation:

1. The City—the official city area, the administrative unit. It is usually smaller than the city actually is.

2. The City Region—the actual, realistic city area, the area of urban settlement and housing developments. Experts in the field also use the term "urban agglomeration".

3. The Metropolitan Area—the planning area of the large American cities, an area which more or less coincides with the city region.

4. The Comprehensive Area—the area into which the city radiates its influence, or the surrounding region of villages and towns whose inhabitants commute to the city to work, to study, and to make their more important purchases, as well as to find entertainment and amusement. This comprehensive area is generally much larger than the first three listed, since it includes even non-urban tracts.

If we resume our search for the largest city on earth as determined on the basis of city region, we find that it is again Tokyo, with no fewer than 20 million inhabitants. The official city area, and added to it Tokyo's harbour, Yokohama, with its millions of people, and a limitless congestion of houses spread over the hinterland, represents one of the world's largest concentrations of people and houses. Viewed from Tokyo's television tower, it stretches from horizon to horizon. In 1956 the area, with a radius of thirty miles from the Central Railway Station, was established by law as National Capital Region of Tokyo and was made the subject of a unified city-planning study. According to this plan, it is expected that by 1975 within a radius of 9.5 miles from the centre of the city all buildings will be many storeys high and fireproof. An adjacent green area of six miles' width will separate the city centre from the suburban area. It is estimated that by 1975 Tokyo will have a population of 27 million people.

As the areas of the various cities are adjusted to include their respective regions as integral parts, the number of cities with a population of a million or more suddenly soars. Instead of 78 cities (according to official area), there are 115 cities that have passed the million mark. In the United States, according to traditional methods of census taking, there are only five cities with more than a million inhabitants—New York, Chicago, Los Angeles, Philadelphia, and Detroit. But by computing on the basis of metropolitan area, we
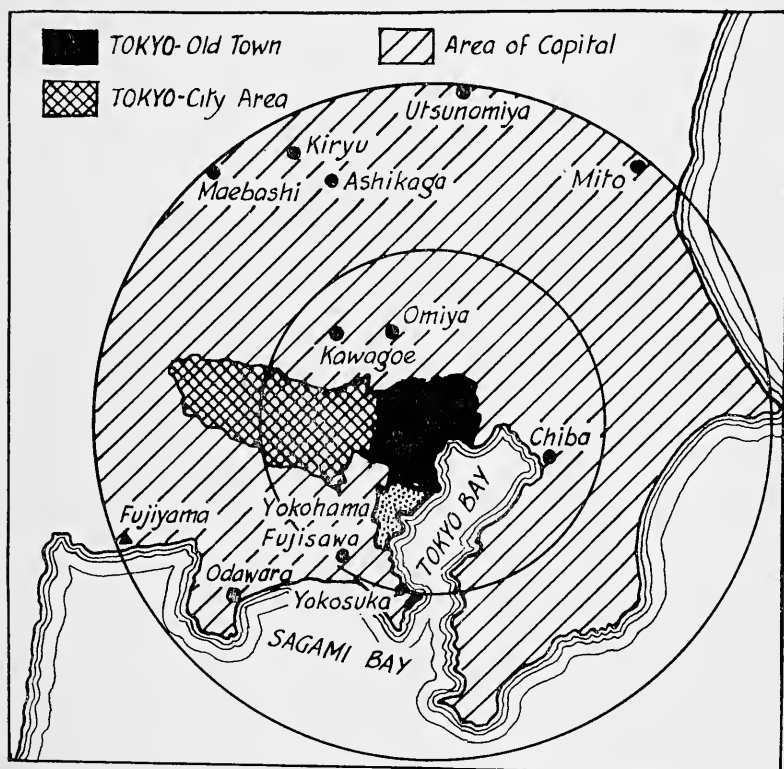
Map of Tokyo.

discover 17 additional cities, among them Boston and the industrial centres Pittsburgh and Cleveland, as well as Washington, the capital.

In Europe, too, this new way of evaluating the size of a city shows surprising results. A number of older metropolitan cities, which officially fall short of a million citizens, now suddenly emerge as million-size cities—for example: Amsterdam, Brussels, Copenhagen, Lisbon, and Stockholm. Manchester, the English textile

centre, usually appears in statistical yearbooks with 0.8 million inhabitants; the actual city region is inhabited by 2.4 million people.

Another question arises here: almost imperceptibly the city region of Manchester flows over into the city region of Liverpool in the west and that of Leeds in the north-east. The city regions of these three cities combined have 5.5 million people. East of Manchester is the half-million city of Sheffield, and to the north a

THE LARGEST CITIES ON EARTH

According to population figures in the city region

(as far as these have been statistically established—or could be established; otherwise the population figure of the official city area)

	Inhabitants (in millions)		Comparative Population Figures
	City Region	Official Area of City	
1. Tokyo	20.0	9.7	Yugoslavia 18.8
2. New York	15.1	7.7	
3. London	10.0	8.4	Hungary 10.0
4. Shanghai	9.5	7.4	Belgium 9.1
5. Paris	8.5	2.9	
6. Moscow	8.3	5.8	Greece 8.3
7. Calcutta	8.1	5.0	
8. Buenos Aires	7.8	2.8	Austria 7.1
9. Los Angeles	6.7	2.5	
10. Chicago	6.2	3.5	
11. Mexico City	5.0	3.2	Switzerland 5.3
12. Peking	5.0	2.9	..
13. Osaka	5.0	2.9	
14. Bombay	4.1	3.6	Finland 4.4
15. Philadelphia	4.1	2.0	
16. Cairo	4.0	2.9	
17. Berlin	3.9	3.3	
18. Sao Paulo	3.5	3.5	Norway 3.5
19. Leningrad	3.5	3.3	
20. Nagoya	3.4	1.4	Cameroon 3.4

dozen or so smaller industrial towns. The vast industrial area of Liverpool–Manchester–Sheffield–Leeds is for all practical purposes one single megalopolis with a population of at least 8 million people.

Such a grouping of cities is usually called *Stadtlandschaft* in German ("city landscape" in English). This expression is not a happy choice, because a "landscape" in the usual sense is not involved, and so perhaps we should speak of it as a "cityscape". This is still somewhat misleading, because the distinction between a city and a cityscape seems not so much a geographical as a political distinction. The industrial Liverpool–Manchester–Sheffield–Leeds group in Central England, the birthplace of the modern industrial

area, is as much a "city" as London is; the only difference is that it is not officially so called.

London, of course, corresponds more closely to the customary concept of a city, since it has a centre, a nucleus, from which the city radiates into the surrounding area, while the Liverpool–Manchester–Sheffield–Leeds group does not have such a nucleus. But this can no longer be considered decisive, because many officially acknowledged cities have had several centres for a long time, or have none at all any more.

Until the beginning of the industrial era, there was no city that did not have a clearly recognizable centre, be it a temple or a church, or a palace or a castle, or—to mention the greatest meeting place of citizens—an agora or forum. The industrial era created a new concentration point, the central railway station, where great numbers of people congregate in a comparatively small area; this centre has come to play an important rôle in city planning.

CITIES THAT WERE THE WORLD'S LARGEST IN THEIR TIME

Time	City	Country at that time	Country today	Largest Population at that time
4th millennium B.C.	Ur	Babylonia	Iraq	30,000
3rd millennium B.C.	Uruk	Babylonia	Iraq	100,000
1700–700 B.C.	Babylon	Babylonia	Iraq	150,000
6th century B.C.	Nineveh	Assyria	Iraq	120,000
600–400 B.C.	Babylon	Babylonia	Iraq	350,000
400–300 B.C.	Pataliputra	Magadha	India	500,000
300–150 B.C.	Seleucia	Seleucid Empire	Iraq	600,000
150 B.C.–A.D. 350	Rome	Roman Empire	Italy	1,100,000
350 B.C.–A.D. 800	Byzantium	East Roman Emp.	Turkey	700,000
800–900	Baghdad	Empire of caliphs	Iraq	750,000
900–1100	Angkor	Khmer Empire	Cambodia	1,500,000
1100–1300	Hangchow	China	China	2,000,000
1300–1850	Peking	China	China	2,550,000
1850–1920	London	England	England	8,000,000
1920–1957	New York	U.S.A.	U.S.A.	14,100,000
Since 1957	Tokyo	Japan	Japan	20,000,000

For some decades now, and especially since the Second World War, city centres have lost some of their significance because of the automobile and the airplane. The airport, unlike the railway station, cannot be located in the middle of the city; the gateway to the world has been moved to the city's periphery. The automobile makes it possible for its owner to live far away from the centre of town, and by the same token, it strikes down city limits in all directions; it

minimizes the need for a meeting place within walking distance; and, incidentally, it makes many old market places almost impassable for pedestrians.

In Berlin three city centres emerged between the two world wars: the old one around the Alexanderplatz, the world-famous one in the area of Potsdamer Platz-Friedrichstrasse-Unter den Linden, and the newest one at the Gedächtniskirche. Today, Berlin has two clearly recognizable centres: Gedächtniskirche with Kurfürstendamm in the Western Sector, the Stalin Allee in the Eastern Sector. This, of course, is mostly a consequence of the political division, but we find similar conditions in many undivided cities.

In 1929, simply by an official stroke of the pen, the cities of Barmen and Elberfeld were united to form the new city Wuppertal; they had for a long time been growing together, and, of course, both were located in the valley of the Wupper River. But to this day they do not have a common business and traffic centre. And in many large American cities the old city centres have long since been reduced in status by a number of shopping centres that have sprung up in the suburbs.

Many business centres, but no actual city centre, can be found in one of the best-known consolidated city areas, the Ruhr district, which should, from the viewpoint of geography and sociology, be called the Ruhr City. There, between Duisburg in the west and Dortmund in the east, at least sixteen city areas have grown together into an industrial city unit of 4.1 million inhabitants, which in effect is Germany's largest city. Officially it is divided into many cities, the largest of them being Essen, Dortmund, Duisburg, and Gelsenkirchen; but, were it not for the identifying nameplates set up along the streets, no motorist would be able to tell these various "cities" apart.

In 1920 the Siedlungsverband Ruhrkohlengebiet (Housing Association of the Ruhr Coal District) was created that was to concern itself with area planning. This agency does not include all of the cities of the Ruhr, yet it represents an area of 5.7 million inhabitants. It is true that less heavily populated areas are included within this region, but none of these areas is larger than the Grunewald, a forest park within the official Berlin city limits. With a maximum consolidation of all the cities within our Ruhr City and those represented by the Housing Association, the resulting "Rhine–Ruhr City", with 7.1 million, probably would be one of the largest cities on earth. Yet, with its 1,567 square miles, it is still smaller than the metropolitan area of Los Angeles, where fewer people live (6.7 million people on 1,694 square miles), and it would cover hardly one-third of the official expanse of Kiruna in Sweden. Compared with many of those places which call themselves cities, it would

conform to all the traditional and political concepts of a city, and geographically it *is* a city.

Upstream the city unit extends even farther along the Rhine: from Düsseldorf via Leverkusen to Cologne, where it merges with the city chain of Bonn, Bad Godesberg, Königswinter, Mehlem,
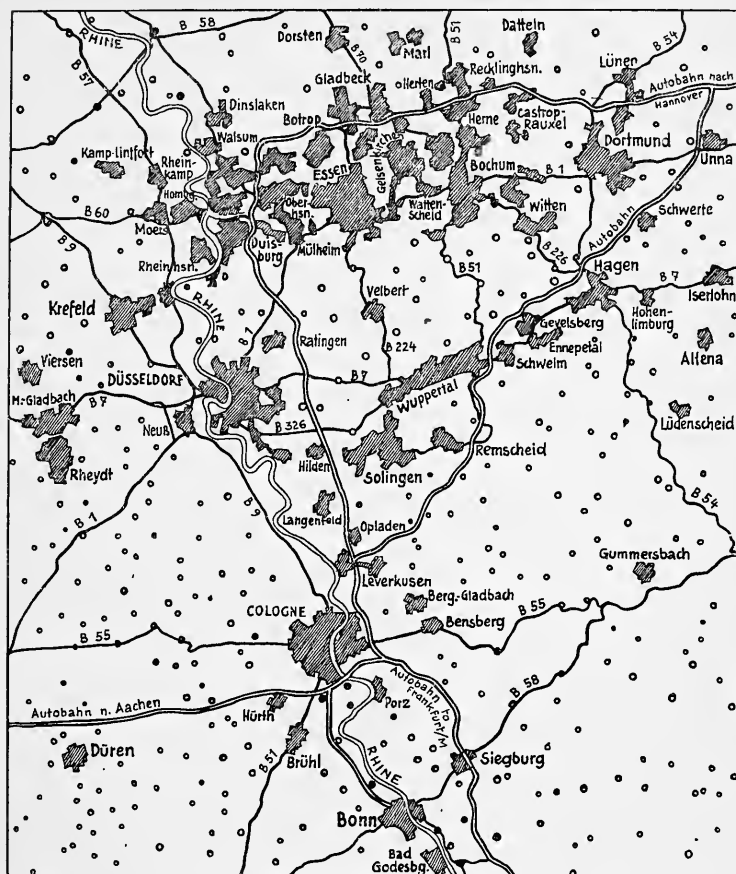
The Ruhr and the Rhine.

Honnef, and Remagen. In this region the railway never passes through open spaces as large even as Munich's English Gardens, the old Royal garden inside the official city area. This total consolidation of Rhine and Ruhr cities would have 10 million inhabitants.

Along almost its entire course the Rhine is lined with an un-interrupted sequence of towns and villages, and one might well call this chain of communities a citified countryside (in contrast to the cityscape). Such citified countrysides extend all around the Tegernsee in Upper Bavaria, on the Riviera from San Remo via Monaco, Nice, Cannes, almost to Toulon, and also along the coast of southern Florida.

Hypothesizing these gigantic cities that do not appear in statistics is not a game. It is rather an attempt to re-establish the clarity of concepts obscured by the arbitrary and political city limits of the authorities and thus to evaluate how far urbanization has already progressed. The physical, emotional, and social effects of living in a metropolis occur also where the department of land registry denies the fact that a metropolis exists. If one does not admit the existence of a city, one cannot solve its problems.

Such chains of cities as we find in the Rhine valley existed in earlier times. The oldest cities linked together were in Babylonia along the Euphrates river some five thousand years ago. Babylon itself with Kish and Borsippa formed a city site similar to the constellation of Athens, Piraeus, and Phaleron. At the beginning of the modern era large cities concentrated in such narrow areas as the plains along the river Po, in Flanders (Bruges and Ghent, and Antwerp), and in the Netherlands (Dordrecht, Leiden, Utrecht, and Amsterdam).

In those days such a constellation was the exception. Today, there are hundreds of them, and the earth is just about to change into a citified countryside, perhaps even into one single city. If the appropriate authorities should so decide, they could easily create a city unit of from 1.4 to 2.2 million inhabitants in the area about Frankfurt; the number of inhabitants would depend solely on where the demarcation line would be drawn. This area would include Wiesbaden, Mainz, Rüsselheim, Frankfurt, Bad Homburg, Offenbach, and Hanau. There are other examples of such consolidated city areas that are not to be found in statistics—Mannheim and Ludwigshafen, Nuremberg and Fürth, the chain of towns along the Neckar River in the Stuttgart-Esslingen area, as well as the Winterthur–Zurich–Baden–Olten city chain.

Not all of these various areas, perhaps, should be unified as single cities; administrative and psychological reasons may, in certain instances, prohibit it. Nevertheless city governments cannot prevent the people who live in suburbs that are not officially integrated from filling the factories and offices, the theatres, sports arenas, and hospitals.

In northern France there is a city of half a million people that responds to three names: Lille, Roubaix, and Tourcoing. The city

that is West Holland, whose most important components are Amsterdam, The Hague, and Rotterdam, has more than four million inhabitants. The Newcastle–Sunderland area in north-eastern England is practically a city with a million people. A giant city, whose northern tip is Kharkov, is situated in the industrial region of south-eastern Ukraine.

We will, however, find the largest city areas only when we leave Europe. The Nile City that is the accumulation of people about the Nile delta within the triangle of Cairo, Alexandria, and Port Said has approximately 13 million inhabitants. By simply setting up new administrative boundaries, cities of ten and more millions could immediately be created on the south-western coast of India, on the densely settled island of Java (where there are 59 million people in an area the size of Greece), on the southern Japanese islands, and in the Canton–Hong Kong area.

The chain of cities in the north-eastern section of the United States, where a stretch of more than four hundred miles is hardly ever interrupted by a patch of countryside, has 35 million inhabitants—the greatest concentration of giant cities on our planet: Boston, Providence, New York, Philadelphia, Baltimore, and Washington. Toward the west, this city chain flows right into the biggest industrial area on earth, that of Pittsburgh, Cleveland, Detroit, and Chicago. Starting from the centre of New York, in almost any direction, one has to drive nearly a hundred miles before reaching country that is not yet citified.

Should it ever occur to a competent authority to legalize the Yangtze City, which would comprise the region from Shanghai upstream along the Yangtze River, the "largest city on earth" would have been established—that is, unless another authority would by decree make a city out of the world's greatest concentration of human beings, in the Ganges valley between Delhi and Calcutta; and it would be only a matter of deciding at the conference table whether this Ganges City should have 50 or 70 million, or even more, inhabitants.

But would all this really still be a *city*? Cortez knew what a city was—a wall, and a square inside. We do not know it any more. Since we no longer have walls to indicate the boundaries, we are unable to define exactly what a city is. The old city was like one single building: the gates representing the entrance doors, the lanes were like hallways, the market place was the living-room or inner court where the family gathered. Then the walls came down: 1795 in Munich, 1858 in Vienna, 1861 in Berlin, 1919 in Paris. And though we still can tell that we are inside a city when we are standing on the Jungfernstieg in Hamburg, or on the Ringstrasse in Vienna, we no longer have any way of telling

exactly where the city of Hamburg ends and where the "non city" begins.

Like octopuses, the cities extend their arms far out into the country. They reach out over the countryside, over countries, over continents. The villagers flock into the cities, and the cities invade the villages and devour them. Even the official city areas include fields and forests which during the age of the walls never could have been part of a city; and the suburbs of one-family houses and the workmen's settlements outside the official boundaries extend the cities far into the realm of fields and pastures. Nowadays, citification of the earth takes place mostly *outside* the official city limits. The division between city and country becomes increasingly vague. The city, of course, will not become rural; rather, the country will become urban. The earth will become a city.

Chapter 3

A MULTIPLICATION PROBLEM

EACH MORNING when we wake up, mankind has increased by a number equal to the population of a city the size of Lausanne or Heidelberg. During the next forty years it will grow by about 30,000 metropolitan cities, or 3,000 cities of more than a million people, or 200 giant cities such as New York.

The legendary inventor of the game of chess is supposed to have offered it for sale to a maharaja, who asked him to set the price. The answer was: one kernel of wheat for the first square, two for the second square, four for the third, eight for the fourth, and so on, doubling the number of grains for each succeeding square on the board. The maharaja, very happy to have the game for what seemed so little, agreed. But in all of India, in all the world, there was not enough wheat to pay the inventor. The first twenty squares brought the price to more than a million kernels of wheat; the first half of the board, thirty-two squares, brought it to more than two thousand million. One may safely assume that if the maharaja's mathematicians continued their computations they did it solely for exercise. The total price came to 18,446,744,073,709,551,615 kernels of wheat.

Such are the surprises provided by the simple process of duplication. As matters stand now, mankind doubles its number every forty years. In 1961 the population of the world surpassed the three thousand million mark. In 2000 there will be roughly six thousand million. If this rate of increase keeps up, there will be 100 thousand million people on earth in 2160, which means that one single uninterrupted city area would cover all habitable land. Six hundred years from now, each one of the 150 thousand million human beings would be allotted just a little more than one square yard. Seven hundred years from now, six people would have to share this square yard; and in seventeen hundred years from now, the total weight of mankind would equal that of the planet on which they live.

One would get dizzy trying to add up further. Fortunately, the increase in population is not merely a matter of arithmetic. At some point the human avalanche will stop—through intelligent reasoning we hope, and not through a catastrophe. When and where the

slowing down will occur, and how mankind will master the tasks that are bound to arise in the meantime—that is the biggest problem for the next decades. Politicians, economists, sociologists, and theologians are carrying on a heated debate about ways and means to solve these problems.

There is, however, no argument about our having to expect six thousand million people for the year 2000, and that the population explosion will not end there. The United Nations estimates the number of people eventually to remain stable somewhere between 10 and 25 thousand million. That is no mere play with figures pertaining to a distant future; based on the present rate of increase, 10 thousand million human beings will be living in about 70 years from now, and 25 thousand million in 120 years.

To speak of an explosion of the earth's population is no exaggeration. For many millenniums, it seems, there were fewer than one million

World Population Expansion in Millions

people on earth, and the one-thousand-million total was achieved only in about 1830, after some 600,000 years of growth. But it took only a hundred years more, from 1830 to 1930, to reach the two-thousand-million total. Mankind emerged from the carnage of the Second World War with an increase of 170 million people, and only thirty-one years, from 1930 to 1961, were required for the increase to three thousand million. In the remaining thirty-nine years of this century, mankind will again increase by three thousand million, thus arriving at double the number achieved from the first appearance of man until the year 1961.

The men of medicine are rather stunned by the results of their endeavours. Medical science has upset the age-old balance between births and deaths. The successful struggle against epidemics and infant mortality has about doubled the average human life expectancy—in Europe and North America before the First World War, in Asia, Africa, and South America since the Second World War.

At the moment, the greatest numerical increase in births occurs in south-east Asia and South America, and it is therefore not difficult to foresee where the biggest city areas of the next decades will develop: along the coasts and in the river valleys of China, India, and Indochina, on the east coast of South America from Buenos Aires to Recife, and also, in a continuation of an existing pattern, in the north-eastern United States and in north-western Europe.

In the non-white nations one can observe the same development as that which occurred in the Western world during the nineteenth century: it will take a few generations (in Europe it took about a hundred years) for the new conditions to be reflected in the birth rate. People who for thousands of years have been accustomed to having every second child die in the first years of its life cannot adjust overnight to the fact that one actually has to produce only half as many children as before, since a few inoculations and some DDT have accomplished the miracle of keeping almost every child alive.

So it would seem that the endeavour of the Western countries and of the United Nations to disseminate their medical accomplishments and knowledge of hygiene among the coloured peoples now threatens these people with the disaster of famine. Agriculture is bound to fail in its task of feeding a people whose number is being doubled every twenty-five years; and that is the condition that exists in some countries of south-east Asia. To be sure, the well-fed nations could do a great deal more than they are doing now, but they still would not be able to provide sufficient food to sustain all the "have not" people.

World production of food has been falling behind population increase ever since 1939. A tremendous concerted effort of all peoples will be necessary if the earth is to survive the doubling of human beings within the next forty years. If by then the birth rate will have adjusted itself to the reduced rate of mortality—as it did in Europe and North America after the first wave of industrialization—there would then be a chance that the population increase could be accommodated. This is the assumption of the United Nations, which estimates that the eventual limit of population increase will be between 10 and 25 thousand million.

Yet, this will not necessarily happen. There are a few indications that the population avalanche may at first even be accelerated:

Since the Second World War most of the old industrial countries have shown a marked increase in the number of children, or at least in the excess of births over deaths. The United States is well known for its large families. In 1938 two countries, France and Austria, had more deaths than births; this situation no longer exists in any

country on earth. The only country where the population is decreasing is the Soviet Zone in Germany, but there it is due to the defection of people to the Western Zone.

Even the opinion that large cities would slowly have to die out if there were no influx from the country, is no longer valid: the city of Paris has had an excess of births over deaths, and so has, since 1957, Munich. In Rome and Los Angeles the excess of births is even quite considerable, and in many giant cities of the coloured world it is truly frightening.

Most methods of birth control, which contributed to the decrease of births in Europe and North America during the first half of our century, are viewed with disfavour by the Catholic Church.

In 1959 Communist China, after three years of it, discontinued its programme for birth control; and it now seems to be flirting with the idea that the whole world could be inundated with Chinese. It is expected that by the year 2000 there will be 1.4 thousand million Chinese in the world—almost as many Chinese as the entire population of the earth in the year 1900.

There are many indications that world population will stabilize at a figure closer to 25 than to 10 thousand million, especially if one takes into account the promises of American and Russian physicians to prolong human life, so that sooner or later the expected life span will be 100 and even up to 130 years. Besides, it is a somewhat unrealistic hope that mankind would ever stop increasing; at any rate, it never happened during the first 600,000 years of man's history, according to our knowledge at least.

And so we have to expect that mankind will multiply to at least four times its present number (from three to twelve thousand million) in the foreseeable future, and that this will probably happen within a period of eighty years—a time which many new-born babies of our day will still live to see.

Four times as many people. Would that mean cities four times as large, or four times as many cities? As far as one can foresee, it will mean cities that will be eight, twelve, and even sixteen times as large, and that for three reasons:

First, unless within the next eighty years a tremendous industrial development will take place in the under-developed countries, then most of the coloured peoples will have starved to death. If, however, a powerful industry will have been built up—something we hope for and to which we shall have to contribute—then the almost automatic by-product will be such concentrations of industrial cities as we find in the English Midlands and in the Rhine–Ruhr district.

Secondly, modernization of agriculture and increased harvests can be achieved only when *fewer* people work the land. One single

American farmer with a tractor and reaping and threshing machines produces more than fifty Indian peasants. If these fifty Indian peasants no longer want to go hungry, then one of them has to acquire a mowing and a threshing machine, and the others have to move to the city and become industrial workers.

Thirdly, ever since the beginning of the industrial era cities have been growing at a speed that was more than proportionate, more than necessary, to both the population increase and the demands of industry. Werner Sombart has established the theory of the "double value of a job", according to which each new job in industry automatically provides another job in the area of supply, administration, and services. Each new job in a factory actually means that two families can earn a living in the city.

But in today's large cities one may speak of a threefold value of a job. When, because of the workers and the administrators and the suppliers, a large city has developed, then the size of the city in itself draws still more people whether they have a job or not. The city's lure can be explained only partly in terms of political economy.

Finally, the expansion of administrative apparatus has been found to be an important factor in the growth of the cities. The British historian C. Northcote Parkinson has expounded this phenomenon in his satire *Parkinson's Law*, according to which officials and employees have a natural and irrepressible tendency to increase the number of their subordinates, to create work for each other—which in turn requires new officials. And so jobs increase like bacilli through division of the cells.

Theoretically, even with 12 thousand million people on earth, each person would still find enough space so that no congested city would have to exist. If we estimate the habitable land on our planet to be, according to our present standards, one third of the total land surface, each single human being could still have a space of 4,784 square yards, which is the size of a very large garden, all to himself.

But of what good are these statistics to us? In our time, theoretically at least, each inhabitant of this earth could have 19,136 square yards as his share of the earth's habitable land. But are we taking advantage of it? Seventy per cent of the world's population crowd each other in an area that represents only 7 per cent of the cultivated land—which means south and east Asia, Europe, and the United States. In Hamburg each person has to be satisfied with 490 square yards, in midtown New York with 36, in the most wretched sections of Hong Kong and Calcutta they have to be content with 3.6 and 4.8 square yards. In 1955 the Chinese government gave the order "Back to the country" and enforced the reduction of Shanghai's population from 6.1 to 5.5 million. But it was all in vain; 7.4 million

human beings are now living within the official city area, 9.5 million in the city region of Shanghai.

North America and Australia were, in point of statistics, virtually empty when the Europeans took possession of those continents, and each immigrant could easily have claimed half a square mile for himself. Instead, they crowded together, and soon they were pushing and shoving one another. Australia is still by far the least inhabited continent, and nowhere in the world has such a large percentage of the population assembled in metropolitan cities; 57 per cent of its population live in the continent's eight metropolitan cities. The immigrants who had often found their old country too confining, preferred to stay right where their new homeland was most congested.

In Europe it is not very much different. Entire villages were abandoned in France; the number of mountain people has diminished to about half during the last hundred years, and a total of farmland the size of Belgium lies fallow, while Paris is constantly growing. In Germany the percentage of urban population rose from 4.8 per cent in 1871 to 30.4 per cent in 1933.

In the days of Peter the Great 5 per cent of the Russian people lived in cities and towns; in 1936 the percentage had risen to 33, and in 1959 to 48 per cent. City population is growing two and a half times as fast as the over-all population of the Soviet Union. Munich, the fastest-growing metropolis in Central Europe, has a population increase of 30,000 each year; Tokyo grows by 280,000 people annually.

In 1914 only 2.2 per cent of the world's population lived in metropolitan cities; today the figure has risen to 9.7 per cent, which means that almost every tenth person lives in one of the giant cities; and this calculation does not take into account areas like the Ruhr district for which there are no official records. Today, there are shrinking metropolitan cities only in the formerly German territory behind the Iron Curtain, in some isolated sections of Austria and France, and in some of those districts which built their whole existence entirely on coal, a commodity which is now losing its importance. These are the exceptions in a world of rampant citification.

Cologne, in 1959, was the last of the West German cities to surpass its pre-war population count, which was 772,000. Hiroshima and Nagasaki have far more inhabitants now than they had before they were destroyed. One might have expected that these ill-fated cities would have been abandoned; but the surge into the city so far could not even be reversed by the atomic bomb.

The figures which many reference books supply, only *appear* to contradict the actual state of affairs. It is true that Marseilles and

Lyons have grown smaller since 1939, but in the meantime Paris has gained more people than the two other cities lost. Urbanization is progressing in France too; in fact, it is progressing in the most drastic manner imaginable—through the overwhelming growth of the single, gigantic city group; and that is driving the government to desperate decentralization attempts. Business firms willing to move from Paris to the provinces receive a premium and tax privileges. The government makes the establishment of new industrial enterprises in Paris very difficult. For each new office building with a foundation of more than 60 square yards a special permit has to be obtained from an interdepartmental commission. Public, professional, and technical schools are being moved into smaller towns. But in spite of all these measures, the city region of Paris has increased by 200,000 inhabitants during 1958–59, by more than 800,000 since 1955. Many firms move just far enough to become eligible for the premium, not to Brittany or to the Pyrenees, but to the near-by provinces, thus expanding the municipal area even further. Only the population count of the official Paris city area fails to increase.

The population of official New York decreased by 200,000 people between 1950 and 1960, and is now listed as 7.7 million, while the metropolitan area during the same period increased by 2.2 million. Here again we see the merely bureaucratic structure, with political boundaries that do not conform to the built-up area. By the same unrealistic measurement the great English industrial cities of Liverpool and Manchester are reported to be shrinking.

Developments in these cities are only a modified version of what once happened to the small town of London: in 1700 it had 200,000 inhabitants; in 1841 there were only 124,000; and today there are only a mere 5,000. The simple explanation is that by now the old town has become the *City* of London, the office and banking centre in the heart of the metropolis, where half a million people are working and no room is left for residential buildings. If London were still officially confined to its old city limits, many reference books would probably eliminate it from their listings. The County of London too shows a decrease in population, while the real city of London continues to sprout.

Thanks to the railways and, more especially, to the automobile, cities no longer need to crowd into a limited space as they did in ancient and medieval times. The basic one-hour's distance from man's dwelling place to his place of work, or to the centre of the city, was increased, with the development of public conveyances, from two miles to twelve or more, and, with the automobile and good roads, to thirty or forty. The city area has adapted itself to the

means of transportation. And consequently, nowhere do cities expand with more abandon than in the United States, the land of the automobile. After the First World War and increasingly so after the Second, a great move to the suburbs began. From 1950 to 1958 the population of official city areas in the United States increased by about 4.3 per cent, that of the suburban belt by 44 per cent.

But the city centres are not being deserted. The rush to the suburbs merely widens the city area and raises the number of inhabitants, without relieving the crowding in the inner city. The vogue of the suburban one-family house—noticeable to a marked degree in America—does not represent a flight from the city; rather, it reflects the desire to keep one's association with the city and its cultural and economic advantages while at the same time enjoying the physical advantages of fresh air and greenery.

Chapter 4

JOINING THE CROWDS

WHAT IS it that lures them all—the old and the young, the strong and the weak, the poor and the rich—into the cities?

It is by no means only the "alluring" cities that have this magic attraction. The population of Cairo doubled during the last twelve years, while available living quarters rose only by 15 per cent; it is obvious what this means in terms of desolation and misery. Most of those Italians who have moved from the poorer parts of their country to Rome now live in horrible barracks, in caves, and in sheet-metal shacks, in even more wretched and squalid conditions than they endured in their villages. And yet, in 1959 some 270,000 Italian peasants abandoned their fields.

In 1947, when India was partitioned, millions of Hindus fled from Mohammedan East Pakistan to Calcutta, and most of them remained there, unemployed and in a state of misery which our worst nightmares cannot match. The government has made repeated attempts to resettle these homeless refugees in various parts of the country; but most of them walk all the way back to Calcutta, where they sleep in the mire of the gutters, covered with flies, and where they resume their daily fight for a place to sit in the shade of the overhanging roofs of the railway platforms.

But we do not have to go that far; in Central Europe too, we can still find many neglected and filthy rear courts which make one wonder whether the people living there would not be much better off even in the poorest villages. At one time millions of people pushed and thronged into the smoke-beclouded Ruhr City, and now they are settled there amidst trash piles, railway tracks, chimneys, soot-blackened factories and smelting works. And the stranger searches in vain for some slight alleviation of this wretched scene.

Why then do all these people surge into the cities, even into the darkest, most unattractive ones, into miserable and apparently unbearable ones?

Industrialization was only one of the decisive factors. The growth of the factories during the nineteenth century brought new opportunities to landless farmers who previously had only the choice between the precarious existence of a hired hand and the uncertain fortune of emigration to the New World. Since 1875 the population

of Germany has increased by 20 million; of that increase, the metropolitan cities absorbed 15 million. The industrial city became a safety valve for the pressure caused by a constantly growing population. Many of the people who migrated to the city found starvation wages and wretched working conditions, especially in the early days of industrial development; but these were still better than the lot of the farm workers, who even today in highly civilized countries fare less well than unskilled labourers in the city.

In recent years a further inducement to seek work in the city was the progressive shortening of work hours in the city's industries —a privilege which agriculture by its very nature cannot grant. Ordinarily the city worker is his own master for a substantial part of the day; and even during working hours he seldom has to work as hard as the farm hand. The farmworker not only toils harder, longer, and—during harvest-time, at least—without regular leisure hours, but also, as a man and a citizen, he enjoys less respect and independence during his short and irregular free time than his colleague in the city. Strange as it may seem, there is a greater gap between the farmer and his hired hand than there is between the factory owner and his worker.

In most parts of Europe, since almost all arable land is under cultivation, it is no longer possible to *become* a farmer—unless some of the last remaining marshes or tracts of tideland are reclaimed, or a large estate is broken up. Generally, it is necessary to *be* a farmer by birth and inheritance. Thus the farmers in most European villages are a kind of hereditary nobility; they do not mingle with farm hands or workers who do not own property. In the early days of industrialization a similar gap existed between the director of a factory and his workers. But this gap could be bridged. It was possible for the factory worker to advance himself and even to become an owner and an employer.

Most of all, however, even during the worst Manchester days, manufacturers and their workers had one basic right in common, a right which until the most recent past frequently was withheld from the farm workers: they could marry and have a family. The farmers, on the other hand, always preferred unmarried farm workers. In Germany, with the express approval of the government, farmers made it very difficult, or well-nigh impossible, for farm hands to marry. And so, marriage was one of the important reasons for the great wave of migration which, in its wake, brought the development of giant cities.

"City air means freedom!"—this was a slogan that echoed through the Middle Ages, as we have seen, and into modern times. "City air" means freedom of the farm hand from the farmer, of the Italian peasant from the owner of the big estate, and even of the lowly of

India from the worst hardships of the caste system. (Since 1950 caste discrimination has been substantially modified by law, especially in relation to political rights; enforcement of the law in this regard has been more noticeable in the cities than in the provinces.) The city also means relative freedom of individuals from inhuman exploitation, from taboos imposed by tradition and superstition, and from intrusion of busybodies and gossips into private affairs. "I have observed," Goethe wrote when he was in Rome, "that in a great city even the poorest, the lowest can be himself, whereas in a small community even the richest does not feel that he really lives, that he can breathe." Paradoxically, the city, with its comparatively limited space, means greater mobility too—an end to the plant-like relation to the land.

In the city one earns higher wages for lighter work in fewer working hours; in fact, one can earn the greatest amounts of money without physical work of any kind—through speculation, through commissions for selling other people's property, through fees for expert advice. Only a few may succeed, but all may compete; success brings wealth and power, while failure may mean no more than having to start all over again. On the farm and in the village the prizes are less spectacular.

In the city one feels protected from the forces of nature. Thunder and lightning, rain and snow, frost and drought are constant hazards to the farmer; to the city dweller a storm is something to watch from his window, or to read about in the newspapers. The feeling of safety, from unknown threats as well as nature's hazards, in living among great numbers of fellow humans is part of the reason for the heavy concentration of immigrants in the great American ports of entry, the largest of which are New York and Buenos Aires. America! a new country, unexplored, foreign, dangerous! So much courage once was, and still may be, needed for taking the daring step into the continent. But the newcomer sets his foot ashore in a large city, and he finds this world of people not much different from Europe; one still can understand it. And so he remains right there.

The shoving, jostling, and hustling is no annoyance at all. On the contrary, man, always a social being and once upon a time superior to wild animals only because of his organized plurality, now seems to choose the city as his proper habitat, after passing through the stages of the horde and the village. The animal going with the flock now has turned into the "man of the crowd", as Edgar Allan Poe called him. The big city is the area of his choice.

A great number of people living together in a relatively small space is in itself an incentive for many other people to push into the narrow area. The girl behind her counter in a department store

often finds it difficult to make the first five housewives stop and look at her demonstration of a novelty gadget. After the first few are captivated, the next ten will not be long in joining. But when fifty are crowded around the table, then every passer-by, as if by magic, will be attracted and will join the throng.

The crowd serves as a kind of tout, suggesting: "Something big is going on here; you'd better get in to see it." If nothing at all is going on, the crowding itself provides amusement. The larger a city is, the easier is its further growth. It would seem that most of these agglomerations grow out of the enjoyment of agglomeration. To be man among men, to see men, to hear, smell, feel them, and brush past them—that was the great pleasure of the people in Babylon, Alexandria, and Rome, and today it has gripped half the world.

The number of individualists who prefer walking alone is not negligible, and they are quite critical of the crowds. But these people by no means move to the village. They stay with the masses or at least close to them, perhaps because they would not want to miss the pleasure of making their way through the crowds with their noses up in the air.

And wherever many people are, the great events take place. Official state visits, cheers for boxing champions, bullfighters, movie, football, and baseball stars; for every kind of performance, there is a public and an audience, people interested in the circus, others leaning more toward poetry readings, and various artistic endeavours, exhibitions, and spectacles, theatre and museums, parading along the great boulevards of Vanity Fair, cars moving bumper to bumper, accidents; Place Pigalle in Paris; St. Pauli, the sailors' paradise in Hamburg; and the Oktoberfest, Munich's annual beer festival—all that exists in the large city, and only there. And one is part of it, or at least one can take part in it if one wishes. The prominent people in tails and mink coats drive up to the Park Hotel, the teen-agers swarm about them and scream for autographs; passers-by watch it and shake their heads—and everybody is happy.

Enjoying the crowds, the satisfaction of "being there", feeling oneself a part of that power complex which is called *city*, freedom from the country, being protected in the world of people, culture, and comfort, more money for less work, and the opportunity to spend the money in a most pleasurable way—all that is the attraction of the city.

318

Chapter 5

ASPHALT AND BOREDOM

AND SO they have been streaming into the city for decades, in every country on earth. But not every kind of person is drawn to the city. The first to follow the call are the more lively, interested people, the open-minded ones, and those who respond to stimulation. And these people constantly supply the city with two qualities that are significant in the shaping of the city's character: vitality and nervousness. But even if they were not already equipped with them, the climate of the city would bring out these qualities in them.

City climate—first of all, this has to be taken quite literally. The larger the city, the more apparent becomes the phenomenon that the city has its own weather, which is quite different from that of the surrounding countryside. Characteristics of city weather are greater warmth, less sunshine, and polluted air.

The yearly mean temperature in the centre of a city is usually two, quite often four, and in rare instances even six degrees above that of its environs. On many days, especially in giant cities, there may be differences of up to eleven degrees between the city and the surrounding country. The yearly mean for Madrid is only 6.1 degrees warmer than that of London, and Rome's is only 11.3 degrees warmer than Berlin's, but these apparently negligible differences prove to be very significant. Since climatic influences cause various body functions to mature several years earlier in southern Europe than they do in the north, it is not surprising that the difference of temperature within the same country should cause the same body functions to mature earlier in the large cities than they do in the rural areas.

Driving into a metropolitan city on a clear summer night, one can feel the dew-fresh coolness suddenly changing into the warmth of the stable. The stone buildings have absorbed the heat of the day and now are heating the streets, just as the brick that the farmer's wife has heated in the oven later warms her cold feet in bed. In winter the tall houses act even more as a heating system for the whole city. A good deal of the warmth that is generated in tens of thousands of stoves and furnaces pours out into the open from the chimneys and seeps out through walls and windows into the streets.

Factory smoke and the fumes of automobile traffic create a haze

319

that on a calm day can be observed over practically every large city. This layer absorbs up to 40 per cent of the sun's rays in industrial cities; it also contributes to the city's stable-warmth at night by providing a kind of ceiling that keeps the heat from rising into the upper atmosphere—star-lit nights are always cooler than cloudy ones, because the stars are clearly visible over a metropolitan city only when a brisk wind has blown away the haze.

When the layers of fumes mix with fog, as often happens in London, the result can be injurious to health and, for people with respiratory ailments, even fatal. About once a week a layer of ozone settles over the low-lying area of Los Angeles and impedes the dispersion of the exhaust fumes of millions of cars and the smoke of thousands of furnaces and stoves; and so the city is suffused with a noxious vapour—called smog—which irritates the eyes and the mucous membranes, causes many traffic accidents, endangers air travel, and damages the harvest. In Tokyo smog has been doing heavy damage to the firs in the parks of the imperial palace. Since the industrial revolution man has been producing so much dirt and poisonous air that even some of the trees cannot breathe any more.

One should assume, therefore, that city people are unhealthy people. In the early days of industrialization, they were indeed not very healthy, and neither, in our day, are the people who are living in some of the sordid sections of metropolitan cities in southern countries. In 1828 Johann Peter Eckermann, a literary associate of Goethe, recalled having seen "among the French infantry a battalion consisting of Parisians exclusively. These men were all so thin and small that one could not help wondering what could be accomplished with them in a war".

If today a Prussian king should once again be looking for the "big fellows", nowhere else would he have a better chance of finding them than in a metropolitan city. In Central Europe and in many other highly civilized areas, each military draft proves that in general city dwellers are taller, stronger and healthier than the sons of peasants. They even live longer in spite of the increase of heart disease among those who will not miss a chance for unwholesome living.

So it would seem that polluted air, lack of sunshine, and even the heavy strain on the nerves, are not of as much consequence as the bitter exigencies and age-old customs that rule the farmer's life. Heavy physical labour during adolescence, food that is not well balanced, a certain diffidence about hygiene, and a strange coyness about oxygen intake make the farmer less healthy than the city dweller. In some Tyrolean mountain villages there are sanatoria that take care of tuberculosis patients from the city, while greater

numbers of villagers suffer from this disease—because in most farmhouses the windows are just not being opened.

As for the health of the city dwellers, while a great deal will have to be done to improve it in the coloured world, and everywhere more must be done to control the fumes of factories and automobiles and to eliminate noise and offensive odours than has been done so far, there is at present no reason to fear an impending disaster.

The picture is quite different, however, when it comes to nervous condition and mental health, which are not influenced so much by the weather in the city as by the non-meteorological climate of stimulation and challenge. From early childhood superabundant impressions, stimuli, and dangers make their impact upon the city dweller, who, compared with the peasant or the small-town shopkeeper, becomes a nervous, unstable, harassed, often pitiful being. Constantly driven by the clock that ticks the time away and by the speeding motor car, pursued by an evil-smelling, onrushing traffic, forever at the highest pitch of attention, the city dweller dashes to his place of work; and even in transit he is assailed by loud-coloured posters and constantly blinking neon lights, which pound into him that he must, by all means, buy this or look at that if he wants to keep abreast of the times.

The always startling, ceaseless succession of impressions, the torrent of stimuli, and in the evening, radio music and television movies—all these reduce the city dweller to the level of an organism always on the lookout for newer, different, still stronger impressions —ready for the sanatorium, or in the end completely dulled and unable to be roused by anything.

The consequence is weariness and disgust. It is a not uncommon attitude among the city dwellers, and the youths find it downright chic not to be amazed, not to be impressed by anything. The German sociologist Georg Simmel found this weariness, this "fancying oneself superior to it all", the most typical character trait of people living in large cities. He calls this weariness an attempt of the nerves to let man withdraw from the incessant demands on one's reactions by not reacting any more at all. "If the reactions caused by the constant contact with countless people in the big city had to be as sincere as they can be in the small town where one knows almost everyone and with whom one has a clear-cut relationship, one would go to pieces inwardly."

In ancient Rome already the bored city dweller had to be regaled with ever more cruel and bloody circus performances, in order to rouse his interest. The history of literature abounds with poets and their creations in whom saturation turned into disgust with life, to a complete emptiness, and finally to suicide.

L

"Paris changes, my melancholia persists," lamented Baudelaire. He talked about his demon, who led him "weakened, tired and broken by fate, through boredom and deserted barren lands." Ennui, disgust—Balzac, Marcel Proust, André Gide, and Paul Valéry have painted it, too; and so, in Russia, have Lermontov, Goncharov, and Dostoyevsky; in England, Wilde and Joyce; and in a similar vein Hamsun and Malaparte, Thomas Mann and Gottfried Benn. It is the disease of the metropolis.

"My misfortune is caused . . . by the utter uneventfulness of life," wrote Georg Heym in 1910, the poet who drowned in the Wannsee near Berlin when he was only twenty-four years old. "Why does one not for once undertake something really extraordinary, even if somebody would just cut the string which holds the balloons that the man is selling at the corner. I would love to see him curse. Why does not anybody murder the Kaiser or the Tsar?" In Dostoyevsky's novel, the St. Petersburg student Raskolnikov *does* commit a murder, and he names as one of his reasons his desire "to grab this whole nonsense by the tail, to become free of it with one big sweep—and the devil may care!"

That boredom can lead to crime is proved a thousandfold by the increasingly frequent appearance of the weaklings and the well-to-do mother's pets in the criminal statistics of large Occidental cities. One important cause of juvenile delinquency is undeniably the widespread need to get away from the well-regulated monotony and empty slogans of city life and to look for some adventure or other. One does not steal out of necessity, one steals to get a thrill, or to raise one's standard of living, or to have money for the gambling halls, those hopeless waiting rooms of boredom, which in turn must generate another eruption. Environment very rarely offers the child ideals that go beyond the striving for material goods. The parents, too, are out to make money, often both of them, so that they do not have time for their children, which is part of the problem of the weaklings and the immature.

Most of them, however, do not even commit actual crimes; they are satisfied with protesting against the immensely boring world of the grown-ups in the manner they wear their hair, by their clothes, and their manners. They call themselves existentialists, beatniks, or Teddy Boys, they wear beards reminiscent of the painters of an earlier period; they drive around in old jalopies painted in gaudy colours; they meet, among other places, in London's Chelsea district, for pyjama parties, and they gleefully torture the older generation's ears with the full blast of noisy radio music. This rowdy kind of music, as well as jazz, seems to them an exquisite way of giving expression to their protest.

On another level, one indicates by wearing identical dungarees,

leather jackets, turtleneck sweaters, and neckerchiefs that one belongs to a group, a gang, where one feels at home and secure in a solidarity of protest. These gangs often move along the periphery of criminality. In New York they have become the greatest threat to public safety; on the slightest provocation they fight each other in bloody battles, and they commit crimes of violence just on the spur of the moment. No one but an uninformed foreigner would ever think of strolling at night in Central Park, right in the heart of New York. Satiety and boredom have widened the scope of the underworld and even established ties with the so-called better circles.

The city has always been a stamping ground of crime, sin, and debauchery. The Jews identified not only the foreign cities of Babylon and Nineveh, but also their very own Sodom and Gomorrah, as wicked. Sybaris, the Greek city in Italy, became a synonym for voluptuousness. It is said of Hannibal (though probably somewhat inaccurately) that by taking winter quarters for his soldiers in the rich and corrupt Italian city of Capua he had depleted the strength of his army. And of ancient Rome it was said that people flocked there in order to speculate, to debauch, and even to train for a life of crime, and that Rome was the best hiding place for a fugitive from the law. About the end of the nineteenth century the young and already gigantic city of Chicago became the breeding place for gangsterism; London is the proverbial site for murder in all the better cloak-and-dagger stories; the word Paris has almost become a synonym for obscenity.

The metropolis breeds crime, because it attracts people who have been ruined and hope to remake their fortunes quickly and without having to work; because factories in times of crises produce unemployment instead of goods; because the city displays before the thief temptations galore; because the criminal sees a chance to disappear in the nameless crowd. And finally, crime thrives upon the general decline of morality in the metropolitan cities, a phenomenon that is usually spoken of as "social disorganization". Having escaped the close ties with the soil and the environment, having become estranged from nature as much as from tradition, the city dweller no longer looks upon childless marriages, divorces, deterioration of family life, and prostitution as unwholesome.

Prostitution is one of the most typical manifestations of metropolitan life, and in many countries it is sanctioned by law only in the larger cities. According to German law the government is authorized to ban prostitution completely in communities of less than 50,000 population, while in larger cities only certain designated areas are barred. Apparently, legislatures, in their planning, assume that immorality grows with the size of the city.

For still another reason prostitution must be considered a product of the city: It is the most perverted outgrowth of the city dwellers' basic philosophy that everything can be bought. Money is a city invention; banking and world trade cannot be isolated from the city. There the essential values of things are irrelevant, and only the value of money, in itself and in relation to things, is of substantive importance. Georg Simmel, in his *Philosophie des Geldes*, wrote:

> The metropolitan city has from time immemorial been the centre of monetary exchange, because the variety and the concentration of commerce and trade affix to the means of exchange an importance which they could not have acquired through the sparse barter carried on in the rural areas . . . The ideal of natural science, namely, to turn the whole world into a mathematical formula . . . finds a parallel in the mathematical precision that practical life has gained from the financial world; it is the preoccupation with monetary matters which fills the day of so many people with weighing, reckoning, numerical definitions, and the reduction of qualitative values to quantitative ones.

Money, like writing, seems to have been invented by the priests of the old Babylonian cities, probably because they needed a way of measuring the value of sacrifices and offerings to the temple. In Nebuchadnezzar's Babylon, the first great money centre in history, several priests were also bankers, and all bankers were priests.

Metal coins were first used in 700 B.C. in Miletus and other Greek cities of Asia Minor. Yet, even in our time, outside the city, commodities are used as payment—in many parts of Africa it is salt; among the natives all around the Pacific Ocean, cowrie shells are used. Money became more and more abstract in the realm of urban civilization; it became watered down into paper bills, bonds and stocks, and checks. Producer and buyer do not know each other any more. Money itself has become merchandise which is traded at the stock exchanges. Even from this aspect, metropolitan life becomes foreign, anonymous and over-organized.

The rootlessness of metropolitan people has often been mentioned as the common cause of capitalism, of the break with tradition, of moral decline, and of criminality. That may well be correct. For the children especially, it is a deprivation and a danger that, as city dwellers, they do not come face to face with growing things. One can only say that it is unreasonable to expect someone living on the sixth floor to grow roots. To see something desirable in this state of having roots is a concept of the rural world. The nomad will never be able to understand why not only the trees but people too ought

to have roots; and the city people do not quite understand it either. A constantly growing affinity between the nomad who in history preceded the peasant, and urban man who follows the peasant, becomes obvious, particularly since apartment houses began to spread.

In the German cities of the Middle Ages only the man who owned a piece of land within the city limits could enjoy the privileges of citizenship. The soil had a hold not only on the peasant, but also on the urbanite. In ancient Carthage and Rome, and in the metropolitan cities of our time, however, the tenant predominates—the person who does not possess anything that ties him to a certain place, so that therefore nothing prevents him from living here today and somewhere else tomorrow. The invention of the apartment house is, in importance to the history of civilization, comparable to the invention of the city in the past.

The growing kinship of the city dweller to the nomad becomes apparent in various ways. Metropolitan people move frequently, be it from one house to another, from one city to another, or even to a different country. In the peasant's vocabulary, the term "moving day" does not exist. He dies in the house where he was born. In fact, the peasant cannot leave his farm even temporarily. Travel as a mass enjoyment was invented in the very same country that gave birth to the modern metropolis: in England. Formerly, when people went on a vacation, they usually had a destination, a place where they stayed for several weeks. With the invention of the gasoline motor, travelling itself has become like a nomad's trek: every few days another place. Millions of people spend the major part of their Sunday in a constantly moving car. The ancient urge to wander, which man followed for 590,000 years, was only repressed during ten thousand years of stability in rural living. It was not eradicated.

In the United States there are many seasonal workers who are on the move from one place of work to the next in their cars and trailers—not unlike the last surviving gipsies who in most countries are despised chiefly because they refuse to settle down. The descendant of the pre-agricultural nomad and his cousin of the urban era often meet on the highways.

More and more American travelling parties are moving around the world in their trailers. When they stop—mostly in camping places—they will, particularly in Europe, meet a great number of people in tents, who in their own fashion stage the comedy called "Back to Nature". The tent, the age-old housing for the nomads, in their case comes from city factories, and so do the folding chairs and tables, the air mattresses, the cars, portable radios, and canned food, which for these nomads represent the necessities when they, in a fenced-in camp-site, fling themselves into the arms of nature.

The city-born movement "Back to Nature" is, incidentally, at least 2,200 years old. Its first literary memorials are the pastoral poems with which the Greek writer Theocritus early in the third century B.C. delighted the courtly society in Syracuse and Alexandria. Urbanization had by then already progressed so far, that one looked upon the apparent idyll of the shepherd's life as a lost paradise. The peasant *lives* with nature; to think of nature as "beautiful" is the idea of city people.

Two hundred years later Horace dreamed of emigration from the sinful city of Rome to the "blessed islands". Juvenal recommends that one move into the country: "With love, turn to the hoe and the care of the garden." But it goes without saying that they both remained in Rome. Voltaire has his hero Candide, after having been bruised and beaten in Lisbon and elsewhere, finally come to rest on a little farm in Turkey, and he ends the novel with these words: "Now let us cultivate our garden!" Goethe's Faust finally reaches his goal by reclaiming new land. Knut Hamsun wrote a book called *The Growth of the Soil*. As a matter of fact, Hamsun was a landowner, and Voltaire actually moved from Paris to a castle in the country where he spent the last years of his life. But they are the exceptions. "Back to Nature" is an urban movement which in general does not lead to much more than an occasional trip to the country. One speaks enthusiastically about the country, but by no means because one might seriously consider moving out of the city. No, indeed; one raves about the country simply because getting excited and enthusiastic about something is one of the city dwellers' favourite parlour games.

The number of people vacationing in the high mountains is steadily growing; the number of Alpine farmers is diminishing. In all parts of the Alps, but especially in the French and Austrian sections, villages are dying out; there are farms where one does not see children, farmers who cannot find a wife. The mountain-villagers move into the valley and the cities. Their children in turn will become enthusiastic about the mountains.

Even mountain climbing is a movement that originated in the city; and it was only fairly recently that it took hold of people who actually live in the Alps. One of the causes for the development of Alpinism may very well be the need to flee the world of man, to escape from the half-hearted, middle-of-the-road world, the city, from which all that is wild, chaotic, overwhelming has been barred, and to be for one vacation (though not longer) with Nature where she is wildest and most threatening.

No wonder that the English invented mountain climbing, just as they invented the industrial city, travelling, and sport in the modern sense—that is, no longer a cult as it was in Greece, but a city-

inspired way of exercising, often combined with an urban glee for numbers and records. As we see, not only moral decay and criminality, but sport and Alpinism too are consequences of man's being uprooted.

It is perhaps actually premature to talk about "rootlessness" in a regretful sense. After all, the city itself and the advancement of culture began with the fact that a group of people left the country and found that they could live without roots. To the city, and by the same token to rootlessness, we owe most of what constitutes the peculiar charm of being human: art, philosophy, science, and liberty. To be free in all respects originally meant nothing more than to have no roots, not to be tied down, to be an eagle and not a tree. All freedom goes back to the basic fact of being free from the country.

It is the city dweller's great good fortune and at the same time the risk he runs, to have the asphalt underfoot, which is guaranteed not to let any roots come through; it is his great opportunity as well as the temptation he must face. At a time when "Blood and Soil" were written in capital letters, Goebbels thought he had coined a term of abuse when he spoke of "asphalt literature". But most literature is asphalt literature, and even the "peasants" among the writers, like Tolstoy and Hamsun, lived for a long time in cities or developed their art through books which came from the city.

Man has built the city as a tremendously enlarged image of himself. The city is as good and as bad as he is. But it creates new possibilities for him; it raises the good to the sublime and degrades the bad to the vulgar. Who strives for the sublime may well have to put up with the vulgar too. Who wants freedom must also accept the risks involved in freedom. Who wants culture must acknowledge the city, the large city. It calls for constant vigilance to prevent the low and the ordinary from gaining the upper hand, as it did in the late periods of Babylon and Rome, in the early days of Manchester, or today in Calcutta. We have to be alert, and we have to start shaping the city of tomorrow now.

THE CITY OF THE FUTURE

L*

THE SO-CALLED CITY OF TOMORROW

IN 1516 Sir Thomas More wrote, in Latin, the famous novel with the formidable title *De optimo rei publicae statu, sive de nova insula Utopia* ("Of the Ideal State, or About the New Island of Nowhere"). On the borderline between jesting and being serious, he describes an island state whose inhabitants live happily under perfect communistic conditions. The island has fifty-four "spacious and splendid cities" which all look alike. The capital Amaurotum is surrounded by a wall and a kind of barbed-wire fence made of brambles. The houses, which are mostly three storeys high, cannot be locked, because private possessions are not tolerated. The owners change every ten years and are selected by drawing lots.

By now the novel has been almost completely forgotten except for the name of the imaginary island, Utopia. In Greek literature there are already examples of utopian thought, drawing the picture of a presumably ideal state. In his *Republic*, Plato himself, who as a Greek made no distinction between state and city, placed his imaginary city on an island and demanded of its inhabitants a frugal and constrained life with a number of communistic characteristics. In 1602 the Dominican monk Thomas Campanella revealed himself as a rabid communist in his book *The City of the Sun*, where private property was not to exist and even the begetting of children was to be regulated by the state.

One utopian-state idea that has greatly changed the world was evolved by Karl Marx. As unrealistic and truly utopian as the prediction may have sounded—namely, that a classless society was finally to replace the state and that thus a paradise on earth should be created—it happens that today a thousand million people are engaged in pursuing this utopia, under the guidance or the scourge of the Kremlin. This experience should prevent us from dismissing the city utopias of former and present days with a smile, unless they are identified from the outset as satires or fairy tales.

In 414 B.C., when the Peloponnesian War was in its eighteenth year, Aristophanes tried to comfort himself and his fellow Athenians with his utopian comedy *The Birds*, in which two Athenians who no longer can bear to be in their city suggest to the birds that they found a city between heaven and earth:

A city must rise, to house all birds;
Then you must fence in the air, the sky, the earth,
And must surround it by walls, like Babylon.

The walls of this city separate the people from the gods, which is painful to both, but finally brings both sides to their senses. The city in the clouds becomes a safe retreat for all that is peaceful, a blissful New Athens, from which the birds ban all politicians, soothsayers, denunciators, and police commissioners.

On his fifth voyage Sinbad the Sailor happens upon the weird City of Apes, which is inhabited by human beings only at daytime, while the apes come down from the mountains every evening and hold sway through the night. The human beings spend their nights in boats at sea; if anybody remains in the city he will be torn to pieces by the apes.

One of the oldest city projects that, from a technical standpoint, could have been realized at that time, was conceived by Nuremberg's most famous son, Albrecht Dürer. It seems that he was not quite pleased with Nuremberg! At any rate, he left us the sketches for a guild city, which nowadays seems rather unattractive to us. Each guild, trade, or profession is relegated to a different section of the city, and the quaint maze of lanes, according to the artist's conception, was to be turned into a city of rectangular blocks with straight streets, with a heavy system of fortifications surrounding it. That was Dürer's dream of a "new" Nuremberg.
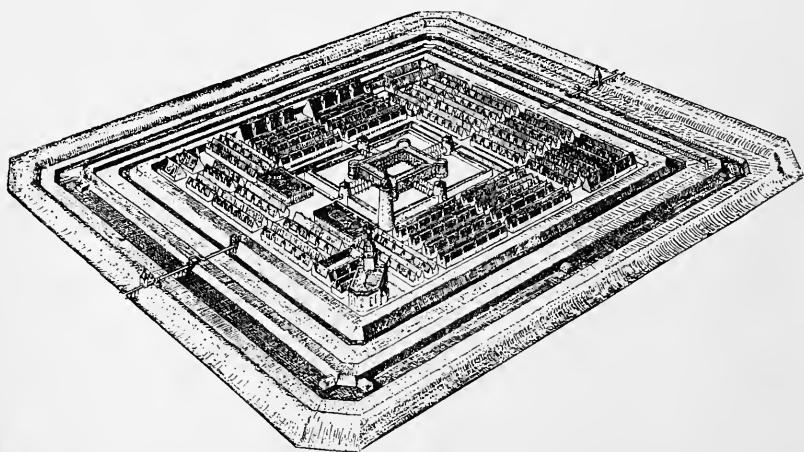
"The City of Tomorrow" as seen by the great Albrecht Dürer (1471–1528). Note the three separate walls, all heavily fortified, and houses set in barrack-like lines—a grim picture indeed.

Jonathan Swift has his hero Gulliver, after having visited Mildendo, the capital of Lilliput, and Lorbgrulgrud, metropolis of the empire of the giants, go on a third journey (which, by the way, is not contained in the edition for the young) and make the acquaintance of the flying city of Laputa. According to the tale, this is a kind of flying saucer on which a great number of people are crowded together. The king of the flying island rules his subjects, who are left behind on solid ground, by the cunning method of making sun and rain unavailable to them by hovering his city island above their cities. In particularly recalcitrant cases he lets his floating island drop on to the city, thereby crushing it.

The first blueprints for a perfect industrial city were already drawn up in 1804 by the French architect Claude Nicolas Ledoux. On the one hand, his plans are marked by cool efficiency and are quite modern in feeling—strictly geometrical forms, cube-shaped houses without a trace of decoration, well-laid-out stadiums—but they also reveal a great preoccupation with the ideas of the French Revolution: equality of all classes, as expressed in the uniformity of all the houses. Ledoux also occupied himself with plans for a paradise on earth, where neither illness nor crime was to be found.

Jules Verne wrote about a man by the name of Schultze, a sort of super-Krupp, a manufacturer of "cannons of dimensions never before attained", who built his steel city in the western United States with factory buildings as high as St. Peter's in Rome. "At the foot of inexhaustible mountains of hard coal rises a tremendous, gloomy, strange mass, an accumulation of symmetrical buildings towered over by a forest of chimneys which spew soot-blackened clouds from their thousand gorges. The sky is visible only through a black curtain, which occasionally is shot through by reddish lightning."

If the steel city so far reminds us of Essen or Birmingham, it nevertheless anticipates some things which today may have become true at Oak Ridge and the concealed Soviet cities: it is surrounded by fortifications and a double ring of walls, and access is possible only "with the help of a secret sign, a password, or else a pass that is duly stamped, signed, and properly made out". Mr. Schultze is killed in his secret laboratory by a new explosive with which he had been experimenting.

In his novel *Der Mann ohne Eigenschaften* (The Man without Qualities), Robert Musil in 1930 drew the following picture of a city of tomorrow:

A kind of super-American city where everyone runs around or just stands still with a stop-watch in his hand. Air and soil create an ant heap threaded with traffic lanes at their various levels. Air

transportation, railroads, subways, pneumatic tubes for the transport of people, chains of automobiles—all are racing horizontally at breakneck speed. Express elevators pipe the masses of people vertically from one traffic level to another. At intersections, one jumps from one means of transportation on to the next; almost without a chance to think or to hesitate, one is swept up and pulled into the rhythm of these moving apparatus, a rhythm interrupted just for twenty seconds between two thundering speeds almost as if by a small gap . . . The various professions are gathered together in groups which are located in their own specified areas . . . The places of amusement are all close together in a different part of the city. And in still another section are the towers where one finds wife and family, the phonograph, and one's soul.

Elevators driven by atomic power were among the features of the Tower City for which the famous American architect Frank Lloyd Wright had been trying to find a builder up to the time of his death, at the age of ninety, in 1959. Wright wanted to house an entire metropolis—130,000 people altogether—in a single skyscraper of 528 storeys and a height of 5,200 feet. The great individualist, who hated the city and would have liked to see every American family in its own house surrounded by an acre of grounds, still flirted with the idea of a city that would put all of Babylon under one roof:

George Orwell, in his bitter novel *1984*, envisioned a London consisting of dilapidated nineteenth-century houses. The windows of these houses are mended with cardboard, and the roofs are covered with corrugated sheet metal; sections of the city have been destroyed by bombs; and there are rows upon rows of dirty wooden shacks that look like chicken coops. High above the London sky line will rise the Ministry of Propaganda—the "Ministry of Truth" it will be called—which will be a step pyramid in the Babylonian manner, but it will be nearly a thousand feet high. Another tall building will be the "Ministry of Love", which will house the secret police and will be windowless.

According to the prognosis made in 1957 by Professor Yevstratov, the city-planning director, Moscow will in 2007 still consist of four- and five-storey houses, but there will be trees in front, and there will be landing facilities for helicopters on the roofs. Twelve to eighteen miles above Red Square an artificial sun will be floating in the sky, which is to turn night into day. "And in the distance, in the bright light of the artificial sun, will rise the monument of the founder of our state, Vladimir Ilyich Lenin." Actually, a Lenin statue that was to be 200 feet high had already been under consideration in 1935. It was to have crowned the Palace of the Soviets,

a Babylonian tower that Stalin had planned to build in Moscow. This tower, with a height of 1,360 feet, was to have been the tallest building on earth; it was never built.

The Russians insist that by 2007 they will have built a moon city, a base for the conquest of the cosmos. According to existing plans, it will be built underneath a tremendous glass dome arching over an entire moon crater and will be anchored into the rocky slopes to prevent the pressure of the artificially created atmosphere inside the glass dome from blowing it out into space. The moon city will grow its own food. The atmosphere, which will resemble that of a hothouse, and the low gravity on the moon will cause the tops of radishes to grow to the height of palm trees.

We will not have a chance to live in moon cities, and most of our grandchildren may not even want to do so. What interests us is how the cities on this earth may look a few millenniums hence. The utopian writers do not hesitate to make their predictions.

Fritz Lang's motion picture *Metropolis*, which was made in 1927, became famous all over the world. "Metropolis" was the name of a kind of super-New York which consisted of an upper and lower city. The directors and managers and the higher echelon of their employees live in daylight. Automobiles in never-ending stream roll along broad avenues that are flanked by gigantic skyscrapers, and airplanes above them drone incessantly. In the dark beneath the surface are the workers servicing enormous machines. These work slaves of the underworld never see the light of day.

The name "Metropolis" was not a happy choice, because it does not point to the future; as a matter of fact it turns back to antiquity, where this word designated the mother city of colonial cities. Corinth, for instance, was the metropolis of Syracuse. That part of the people would be driven underground in a city of the future was an idea which had also occurred to H. G. Wells in 1895, when he wrote his utopian novel *The Time Machine*.

In Franz Werfel's novel *Star of the Unborn*, published in 1946, which reaches into the future some 100,000 years away, all people live in a gigantic subterranean city that encompasses the whole earth. The earth's surface is completely flat, nobody lives there, and it is overgrown with "iron-grey grass". The trees in the few scattered gardens have a "leathery black foliage". In each of these gardens is a glass dome covering the entrances to the urban underworld. Its inhabitants have no hair and wear wigs as the only piece of clothing. They are fearful of the sun, shy away from any exertion, decision, or embarrassment. The large square in the centre of the city region is called California; it is nineteen miles wide. Its floor is as smooth as a mirror, and the Californians glide over it on ice skates.

It is surprising that in so many of the utopias man is seeking the way back into the earth, in whose caves he was at home in pre-historic times. Though the nomad's tent and later on the house of the farmer have made cave dwelling a rarity, it is by no means extinct. In New Guinea, the Celebes, and Ceylon, there are still natives who live in caves. On both sides of the border between the United States and Mexico there are Indians who still live in caves in the steep walls of solid rock, natural caves which they have turned into dwellings, and which in many cases can only be reached by means of ladders.

Most of today's cave dwellers, however, have dug their own caves. Along the Spanish coast of the Mediterranean, in Portugal, and in Tunisia whole cave villages exist; the only things visible are walls and towers that form the entrances and serve as air shafts for the earth caves. In lands where loess abounds—as for instance in Hungary and in Bulgaria—the peasants have dug their caves into this horrible, sticky sand. In the interior of China hundreds of thousands of people are living *beneath* their fields.

Even in cities, it was no great rarity to live underground during times of great devastations. Those who had survived the visitation of Genghis Khan's and Tamerlane's hordes often lived for years in cellars and caves that they had dug into the ruins of demolished buildings—not only because dwelling places that had not been destroyed were rare, but also because of the belief that one is best protected if one keeps out of sight.

Even in the recent past, war has suggested going underground; the shafts of the London subway served as air raid shelters in 1940, and millions of people in the large German cities spent a considerable part of their time during the last war years in cellars. The city of today, which is no longer fortified, tries to protect itself by walls overhead, since the enemy is now coming from above.

In Sweden extensive field hospitals and air-raid bunkers have been built into the rocky ground, in order to be prepared in case of war. In Basel a "civic project for parking places and civil defence installations" is following the Swedish example and plans to create parking places sixty-five feet below the surface, which in case of war can be used as air-raid shelters. In Brussels a "Standing Committee for Subterranean City Planning" is working on the problem of moving parking places, railway stations, department stores, and cemeteries underground, in order to create more space on the surface. In 1960 a "Study Group for Subterranean Traffic Installations" was formed in Düsseldorf, which will examine the possibility of building subterranean streets and parking areas in West Germany.

Though it is true that the best thing to do about parking places

is to put them underground, we, the people, on the other hand, would much rather stay above, I believe, and so we might as well leave the question, whether this will still be so in 100,000 years from now, to the utopian writers. A hundred years ago even the most imaginative city planner could scarcely have suspected that the automobile would play such an important rôle in the life of the city. We cannot make plans for more than fifty or, at best, a hundred years ahead.

We must, however, beware of a misconception. It has become a habit among city planners in speaking about the "city of tomorrow" or the "city of the future" to refer only to the cities as they would wish to build them. But it is an open question how much opportunity they may have to realize their wishes. It is quite obvious that they will not be able to do so completely, and certainly not everywhere. The cities of tomorrow will only to a certain extent conform to what the fashionable slogan "city of tomorrow" implies, while the far greater part will look not at all like the city planners' visions.

We refuse to be so pessimistic as to believe that the city of tomorrow will resemble the deserted Mayan or Inca cities, or the uninhabited structures which in their magnificence remind us of the late periods of Babylon and Rome—perhaps because an atomic war may extinguish all life. But we have to face some facts: at present, seen on a world-wide scale, the many model cities, exemplary city districts and redevelopment projects, do not keep pace with the growth of the "tin-can cities" and the slums. The wretched city of mud and sheet-metal shacks will be to a great degree the "city of tomorrow", and since one cannot yet foresee at what future time hunger and over-population will be stemmed, it is to be expected that Calcutta—now the world's largest concentration of misery and sorrow—will be the ever-recurring city type of tomorrow. A turn for the better may be expected at best for the day after tomorrow.

Unless in our Occidental arrogance we should assume the world of the white race to be the entire world, it is not sufficient to overcome the obstacles which confront *us* in making large-scale plans for cities of the future—obstacles such as avarice, short-sightedness, clinging to obsolete concepts, and exaggerated ideas about personal property. For many decades to come, all mankind has to make tremendous efforts in order to combat the suffering in the whole world and to justify at least the hopes that the beautiful plans for the city of tomorrow may even begin to be realized in India and Egypt.

For the time being, then, the question what the city of tomorrow will look like, can only be answered by stating that it will only to a limited degree look as it *should*, which leads to the second, even more difficult question: How *should* the city of tomorrow look?

At this point, we cannot avoid a rather depressing realization: In a large part of the world, the beautiful city of the future is not even desired. The Chinese Communists, for instance, are not half as interested in the features of the city of tomorrow as they are in the attitudes and habits of the inhabitants of the city. In 1959 they began to set up their People's Communes in the cities. In Mukden (officially Shenyang), which is a city of two and a half million people, groups of 30,000 inhabitants were organized into such communes. Already in 1960, 80 per cent of the people of Chungking, which is now a city of two million, ate their meals in canteens owned by the state.

In the year 2000 every fourth person and probably also every fourth city will be Chinese, and so we have to expect that the city of tomorrow will to a great degree be like a giant collective, where family life will no longer exist and not even the faintest traces of personal freedom will remain. Of Russia too we can hardly expect anything more hopeful.

In an area that comprises one third of the world, namely in the hunger districts between East and West, the city of tomorrow cannot be anything but desolate; in the second third, which means the Eastern block, the future city is even intended to have an appearance that the West will find desolate. And so it seems that there is only the last third to which the wishful thinking of the city planners can apply.

And finally: Are there, for this last third at least, any prerequisites and ideal conceptions which we all can accept? Are the city planners in accord, and are they on the right track? Is it possible, in the first place, for a planned city to be beautiful?

A BEAUTIFUL CITY—IS IT POSSIBLE?

WHAT IS it that makes a city beautiful? A look at the cities that are generally acknowledged as among the most beautiful shows that in point of location these cities fall into four classifications:

1. Cities whose location is clearly the determining factor for their much-praised beauty. Rio de Janeiro belongs in this category, as well as San Francisco, Colombo (capital of Ceylon), Istanbul, Naples, and Genoa. All are located along picturesque ocean bays, and most of them have a background of high-rising mountains. The high buildings of Copacabana Beach, the imposing bridge from San Francisco to Oakland, or the mosques of Istanbul—all add to the magnificence of nature; but the Bay of Rio would still be a wonderful sight even if there were not a single building. It would really take an exceptional degree of incompetence in these environments to build a city that would be unattractive in its over-all appearance.

2. Cities whose fame is based in equal parts on their favourable location and their fine architecture. An example for this category would be ancient Pergamum where monumental palaces, temples, and altars were built on terraces which rose a thousand feet high on the steep acropolis; others are Venice and its Far Eastern counterpart, the tremendous city of Bangkok, the city of canals and temple towers; Salzburg and the old city of Dresden; Prague, the "Golden City", and Budapest. Vancouver on Canada's west coast may well have to be mentioned also; it is a spaciously designed green city, situated on an ocean bay against a background of snow-covered mountains.

3. Cities that are famous primarily for their layout or their buildings, but whose charm is favourably accented by nature. We might mention here ancient Athens and the old city of Hangchow; Rome and Florence, both in the past and today; Vienna and Bern, Amsterdam and Cologne, Copenhagen and Stockholm, New York and Washington. Hamburg and Zurich prove how effective a lake can be that extends into the centre of the city. Since the city of Brasília is devoid of all natural beauty, its designers created for it an artificial lake that is twenty-eight miles long.

4. Cities that have no natural assets at all, but are sightly nevertheless. We are thinking of ancient Babylon and Thebes, and in a

later time St. Petersburg and Moscow, and to some extent also Paris and Brussels, Berlin and Munich. What these cities have in common can be stated in very simple terms: spacious ground plans and a great many buildings that have no specific commercial or bureaucratic purpose.

We may have answered the question concerning the beauty of a city a little too much from the tourist's perspective. The opinion is gaining ground, however, that it is first of all important to *live* handsomely, which means having healthy, attractive, and adequately roomy places of residence—not only for the well to do, but for the bulk of the population as well. If we take a new look from this angle, we shall find the most beautiful cities in Sweden, Denmark, the Netherlands, Belgium, Switzerland, Canada, Australia, and New Zealand.

Only in rare cases do the living accommodations fit in with the charm that enchants tourists—as they do in San Francisco, Vancouver, or Sydney. In most cities that have the reputation of being beautiful the greater number of people live in poor surroundings, and many of them in filth and misery; we might mention Rio and Istanbul, Naples and all the southern harbour cities that we as tourists love so well.

There are no indications, however, that the occupants of such miserable quarters are particularly unhappy and dissatisfied with their cities. Could it be that they feel compensated by the beauty of nature or by being able to look at the magnificent buildings, or by the fame their city enjoys? After all, one does not live only in one's dwelling, one lives in a city and takes part in all it contains. While it certainly has its advantages to live in a green and dust-free model settlement, there can be no doubt that many people are content with a dark hole, because it allows them a view of the Bay of Naples or of a great old cathedral, and in many instances simply because this dark hole is part of the city which they love. And love has strange ways indeed.

Even without cathedrals and without any natural beauty, every city seems to offer something that one can love. Even the hungry and homeless people of Calcutta refuse to be resettled in the country. In Germany nobody would have to go hungry today if he would only change his residence; it is obvious, therefore, that those living in some of the highly industrialized cities of medium size are not altogether dissatisfied with their cities.

If someone driving through the Ruhr City for the first time would make reference to a nightmare, the natives would be sure to react to this statement partly with obvious lack of comprehension, partly with a show of anger. During the nightly bombardments of the Second World War it became apparent that even the rootless

city dweller has a feeling of belonging. They clung even to the ruins of their tenements with a dogged love, the people of Berlin and Hamburg, of Cologne and Frankfurt. There is only one possible conclusion: No city can be so miserable and so ugly that most of its inhabitants would not find it a quite tolerable place to live in—at least better than the village or any other city.

The city planners, therefore, face an extraordinarily difficult task because of these psychological implications, unless they are working on completely new cities; they are undertaking to change something to which many people are attached, something that many more people do not believe to be in need of change. Besides, it is harder for the city planners of today than it was for their colleagues in antiquity or in more recent centuries, because most of the conditions under which beautiful cities could grow no longer exist.

In the western world there are no longer any despots whose iron will could move mountains. In a political sense, this is of course fortunate; from the viewpoint of city planning, it is rather a disadvantage. It was precisely these rulers, these men so fond of splendour, who instigated many of the most famous and magnificent city creations; there was Babylon under Hammurabi and Nebuchadnezzar, Thebes under the Pharaohs, Nineveh under Sennacherib, Athens under Pisistratus and Pericles, Alexandria under Alexander the Great, Rome when it was a cosmopolitan city under Augustus, Peking under Kublai, Paris under Louis XIV and both Napoleons, St. Petersburg under Peter the Great. A tyrant's will can squander millions, can build magnificent boulevards across old cities, or tear down whole sections in order to make room for monumental structures. Certainly, not everything that a dictator builds is beautiful—Moscow in its present state is a good example—but many of the features which are impressive in our cities have their origin in a despot's will.

The Christian world is no longer inspired by that all-absorbing piety to which numerous cities owe their cathedrals. We live in a strange dilemma: whether we are believers or not, whether we find an individual church attractive or in poor taste, none of us would like to think of Cologne without its Dom, of Strasbourg without its Münster, or Rheims without its cathedral, or of Rome without St. Peter's.

Yet we seem no longer to be able to *build* a cathedral; at any rate, in the entire Christian world during the most recent decades not a single church has been built which truly reigns over a whole city. The new churches of recent years have usually been built in styles that aroused controversy, and they are certainly always small. Will ever a city again undertake building a cathedral that, like most of the

Gothic cathedrals, was so large that all its inhabitants could not fill it completely?

The present situation is caused perhaps, not so much by lack of religious faith as by a certain hesitation concerning style, and also by the fact that we no longer feel inclined to make material sacrifices for any community building project other than for our own living quarters.

If there is no longer a dictator powerful enough to enforce these sacrifices, then, it would seem, great impressive structures which do not serve a commercial purpose can go up only if there is a strongly developed public spirit capable of thinking beyond one's own four walls and one's own purse. In America and in Scandinavia there are at least some beginnings in that direction; in Germany there is nothing of the kind. It is inconceivable that in our day such monumental structures as the Arc de Triomphe in Paris, the Brandenburg Gate in Berlin, and the buildings about the Königsplatz in Munich, which definitely do not serve a practical purpose, could be erected.

One of the few exceptions is Mexico City, where in 1958, for the sole purpose of indicating that a new suburb had been built, five colourful asymmetric concrete towers were erected, ranging in height from 132 to 187 feet. They are not intended for any use, and one cannot even climb them. The University of Mexico is rich with massive buildings that combine the most modern forms with the heritage of the Mayas and the Aztecs; in their wild, colourful strength they may be compared to Nebuchadnezzar's structures in Babylon.

A third incentive to city building, the fondness for show and splendour which many wealthy families once displayed, no longer exists. The great Italian cities of the Middle Ages, especially Venice and Florence, owe their magnificence to these rich families, and so do the great old cities in Flanders with their beautiful patrician houses.

Finally, it is impossible to *create* romance and legend; one can only hope to *find* them. Those few cities that have resisted the onslaught of industrialization and now represent the last relics of a time when cities grew like trees, slowly, ring after ring, changing only very gradually over the centuries—these old cities are very precious indeed, and there is nothing we could possibly add. But wherever romance still thrives, as for instance around the Mediterranean, city planners take a dim view of it, because almost invariably it is unhygeienic or it slows down the traffic.

No more romance, no cathedrals and palaces, no splendid avenues, no monumental buildings without a practical function—that is a rather sad perspective. The city planner cannot be blamed for this state of affairs, but he has to take it into account and therefore is

forced to use a certain restraint in what he is doing; it goes without saying that he also must have great respect for the magnificent remains of an era that created cathedrals. Be that as it may, we should be rather suspicious if someone promises to build an ideal city for us—especially since he no longer can decide about the most significant elements of a city.

First of all, metropolitan man ought to be enlightened about his erroneous assumption that the city is only a place for living. Whoever would limit it to that function would thoughtlessly deprive the city of its essence, its soul. Out of the 7,000 years of city history, certainly 6,850 years—which means till the beginning of the industrial era—fall into a time when the city consisted of a temple that towered over everything, a wall and fortifications, and later a square for public assembly. The walls have fallen, and we do not intend to build them again. The cathedrals still exist, but apparently we are unable to build new ones. For thousands of years people thought it more important to live in close proximity to a venerated temple than to have a place to live that was hygienically flawless. The ideal residence of today protects against tuberculosis, but it does not protect against boredom.

The city planner of bygone days could include churches, castles, large squares, and a number of attractive details in his plan. As a matter of fact, often enough his actual plan did not go any further than to sketch these focal points. It could be a beautiful city such as St. Petersburg that emerged from such planning. But such a beautiful city is just what the city planner of today cannot plan any more, because either public interest or the person who would give the money is missing. He can plan that everything will function faultlessly, he can concern himself with providing healthy living quarters and with the requirements of hygiene; but smooth running and cleanliness can also exist in a prison, and the most hygienic place is a hospital.

A beautiful city can be planned only if either something comparable to the Bay of Naples is available or the beauty of old city nuclei can be integrated into new plans—or if the citizens can be made aware that one fine day they will get very tired of a city without beautiful buildings that exist for beauty's sake alone.

343

BRASÍLIA AND ITS KIND

In MANY places between New York, Düsseldorf, and Milan monu-
mental buildings—functional ones—are still going up, thanks
mainly to the large industrial concerns and the insurance com-
panies. (They prove, incidentally, that not everything monumental
is beautiful.) In New York the immense concentration of such
buildings, with their exaggerated ostentation—in a free competition
of conceit, as it were—has nevertheless created a vital and impressive
city.

Even in antiquity it sometimes happened that cities were built
according to carefully worked-out plans, although compared with
the labyrinthine cities they seldom endured. Planning consisted
mainly of establishing a pattern of streets which, if need be, could
be extended in all directions. This was, of course, a rather basic
decision, because there is hardly anything more permanent in a city
than the course of its streets, which generally outlives all architec-
tural changes by hundreds and often thousands of years. During the
reconstruction efforts in the large German cities after the Second
World War, changes in the course of streets were only very rarely
made. The Hohe Strasse in Cologne still follows exactly the same
route it took in Roman days.

The checkerboard pattern—straight streets with right-angle
intersections and, consequently, rectangular building areas—has
always been highly favoured. About 3000 B.C., Mohenjo-Daro
was built in this pattern. The geometrically fixed limits of the
barracks cities which in the Soviet Union always sprout when
a new industrial site is being developed have as their oldest
model the quadratically arranged streets of Kahun, the town
built by Pharaoh Sesostris II about 1890 B.C. to house the
labourers who were building the Pyramid of Illahun. Even in
Babylon all streets outside the temple area were intersected at
right angles.

Along strictly geometric lines and for the first time completely
planned in all its functions was Miletus, which was built by the
architect Hippodamus. Against strong resistance from the repre-
sentatives of agrarian reform, he turned the checkerboard pattern,
which he insisted upon, and which often necessitated tremendous

removal and shifting of the soil, into a Greek fashion that later on was accepted by such cities as Rhodes, Priene, and Alexandria.

In 1698 the city of Mannheim, in south-western Germany, was built in a grid-iron design, and it has to date remained the only German city which does not name its streets but numbers them.
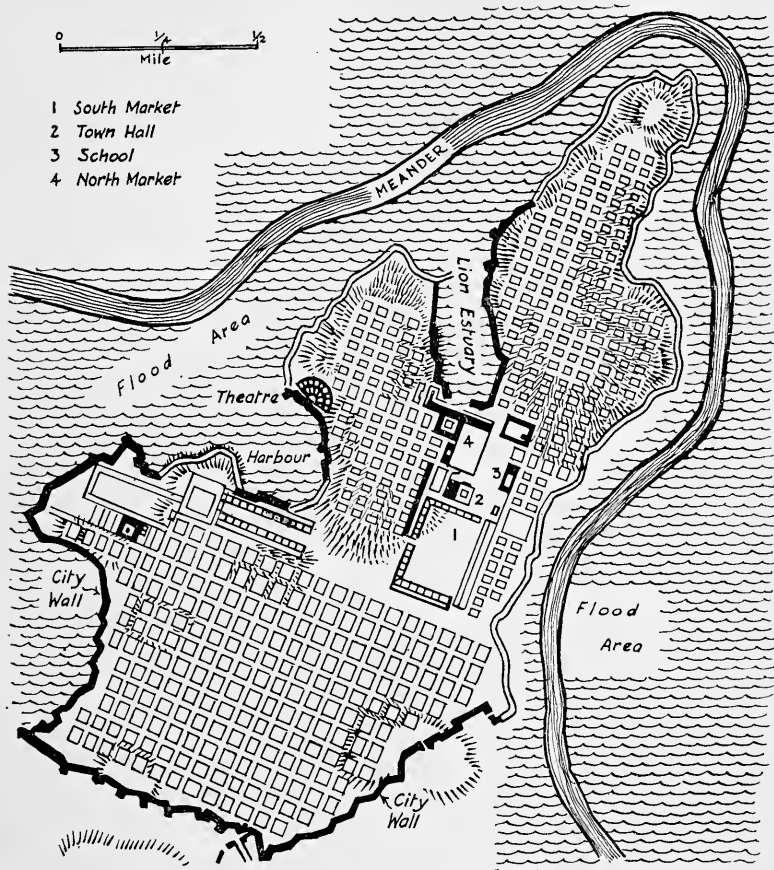
Ground-plan of Miletus (500 B.C.).

So, by the way, do most cities in the United States, where the monotony of the right angle enjoys its greatest triumphs.

In Washington, on the other hand, the streets follow a radial pattern extending from the centre of the city—a ground plan that next to the checkerboard has become the most favourite for city

design. In the eighteenth century the Castle of Karlsruhe became
the centre of a system of radial streets which in its northern half is
particularly dense and very impressive. Along the same lines is the
famous star of streets in Paris which centres on the Arc de Triomphe
and gives the Place de l'Etoile its name; and in Berlin there is the
star-shaped plaza on which the Victory Column is built.

St. Petersburg's three main avenues, among them Nevsky Pros-
pect, converge at the Admiralty Building in a radial pattern. Stalin
built an enormous star of streets through Moscow, radiating from
the Kremlin. And in New Delhi, which is the spacious government
section built by the English in 1912 in India's old capital, wide
boulevards converge at the Parliament Building. Canberra consists
of an intricate network of inter-connected radial systems, the largest
and innermost of which centres on the Capitol.

Brasília is built in the shape of a single immense cross. This was
the ground plan employed in the ancient city of Alexandria, where
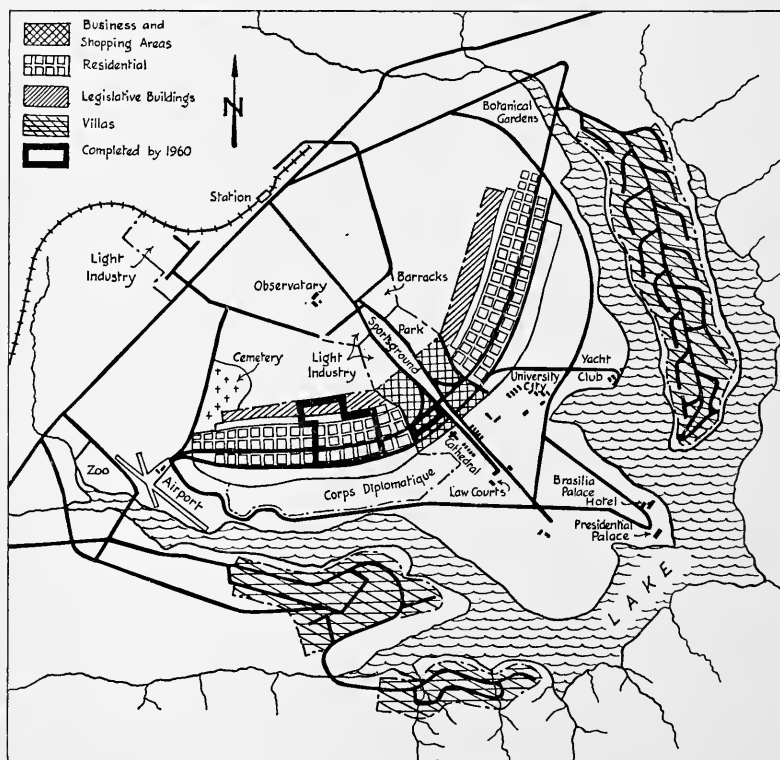
Brasília from the drawing-board.

346

the east-west axis, the so-called Racecourse, was intersected by the shorter north-south axis; later, the ancient metropolis of Antioch, in Syria, was built according to the same pattern. Neither of these cities, however, based its design completely upon its two intersecting boulevards; in Brasília, one avenue, which leads from the large dammed-up lake in the south-east to the railway station in the north-west, is the ceremonial thoroughfare, with all public buildings facing on it, while the other, which forms a crescent that swings from north to west, conforming to the terrain, is the residential axis. The ground plan, especially when framed with the north-west sector toward the top, seems to show the image of a bird in flight, the ceremonial thoroughfare representing the body and the residential axis the wings. However, this design is lost in the actual physical proportions of the city, and its critics say that all that is left is only an impression of endless streets and immense distances. Those who are favourably impressed, on the other hand, hail it as a bold plan, worthy of a future cosmopolitan city.

The ceremonial avenue is 3.7 miles long and no less than 1,150 feet wide (for comparison: the Avenue des Champs Élysées is 1.5 miles long and 230 feet wide). Its centre is the Praça dos tres Poderes, the Plaza of the Three Supreme Powers, with the official residence of the President, the Supreme Court Building, and the complex of buildings housing the legislative body.

The legislative complex consists of two flat buildings 330 feet high and standing very close together; they contain administrative offices, and both of them resemble the United Nations Building in New York; besides these there is a low structure upon which rest a kind of bowl and a cupola of concrete. The tremendous bowl holds the conference hall of the Chamber of Deputies.

Next to the bold square, in the direction of the city, follow the ten-storey office buildings that house the various ministries. Around the intersection with the residential axis are the cultural and amusement centres, the business and office sections, and, farther to the north-west, the fairgrounds and the stadium.

The majority of the future inhabitants of Brasília will live in six-storey, uniformly built blocks of apartment buildings, which will have no ground floor, but will be built on stilts. Like the government buildings, they will be constructed of concrete, with this difference: that far less imagination was applied to their design. Everything about them is straight and rectangular.

Each of these concrete blocks is planned for between 250 and 300 people, and each group of eleven is placed in a landscaped green residential square with a side length of approximately 1,300 feet and with its own school and kindergarten. Four such residential

squares form a "neighbourhood", to each of which a church, a shopping centre, and a hospital are assigned. Roughly one hundred of these residential squares are expected to be some day lined up along the more than six miles of residential axis.

The endeavour of city planners in Europe is to create a street system that resembles the organic branching out of leaves or the apparent maze of veins in our body. In Brasília, on the other hand, the geometric ground plan with right angles and stiff lines, for which Babylon, Miletus, and Alexandria set the pattern, is enjoying a late triumph.

One cannot avoid the impression that the architects and builders of Brasília had in mind only the gigantic, the Babylonian measurements, instead of striving to combine the monumental with the human element—a combination which contributes so much to the charm of the most famous cities. Lúcio Costa, designer of the prize-winning plan, and chief architect Oscar Niemeyer have placed a monumental city in the middle of the campo, a city that consists of splendid boulevards only and ignores the labyrinth.

The inhabitants are expected to acquiesce to the bold scheme. They have less freedom in the choice of style than in any other city at any time. The residential squares, to begin with, contain only the uniform blocks which Niemeyer decided should be there. Farther away from the residential axis, but parallel to it, is a strip of one-family houses, while villas are permitted only on two peninsulas in the artificial lake that surrounds Brasília in the shape of a half moon. But even these villas have to be built in compliance with Niemeyer's decrees concerning style.

Niemeyer (who is of mixed German and Negro ancestry) has an answer to the reproach that he is a dictator:

It is imperative to give the architecture of Brasília a disciplined form of expression that is in harmony with the structures of steel and concrete. Besides, in Brasília we do not intend to copy; we wish to create a modern architecture by applying the most recent accomplishments of the building industry. We will never fall back upon the customary and unimaginative ways. That is why about 90 per cent of the projects that are being undertaken in less demanding parts of the country cannot even be considered in Brasília.

This is very high-toned language for a man who, though his government buildings certainly bear the mark of originality and monumentality, nevertheless will have to wait and see whether people actually will want to live in his city. Brasília is designed to provide facilities for a good half-million people. It will be interesting

to see how the people of Brazil react to Niemeyer's uncompromising conception—whether they may find ways of slyly breaking his rigorous scheme, or at least toning it down with a little of the *mañana* spirit. It may just turn out that a city without a dash of disorder is unbearable. One development over which Niemeyer has no control are the "tin-can cities" that the poor are building outside the restricted zone all around Brasília.

We have a rather ominous example in Canberra, though it should not be forgotten that the Australian capital was meant as the solution of a difficult political problem, and that nobody was more than half-heartedly engaged in the city's development. It certainly is to Brasília's great advantage that this new metropolis was carried along on a wave of national enthusiasm, which started even before the inauguration of President Kubitschek.

As early as 1825, three years after Brazil became independent of its mother country, Portugal, the question was seriously considered whether the independence of the young state should not be documented by building a new capital, which was to turn its back on Portuguese tradition and therefore should be located in the interior of the vast country. In 1891 the transplanting of the capital into the interior was made part of the constitution. In 1922 the cornerstone of Brasília was laid—but the cornerstone only. The constitutions of 1934 and 1946 reaffirmed the obligation to transfer the seat of government from Rio de Janeiro to the spot where the solitary cornerstone was waiting.

But nothing happened until 1956, when newly elected President Juscelino Kubitschek seriously concerned himself with the constitutional obligation. Immediately after his inauguration he began. In the summer of 1956 building started on the high plateau in the Serra dos Pireneus—at the southern edge of the Amazon basin, 585 miles from Rio—where only wild bramble had grown. The elevation of the area is between 3,280 and 3,840 feet, and therefore the climate is dry and the nights are cool, a welcome change from the torpid hothouse climate of Rio.

The airport was finished first. Since at the time neither highway nor railway to Brasília existed, cement was flown to the building site. All the materials thus became twenty times as expensive as they were in the coastal region. The unrestrained and quite un-Brazilian haste with which Kubitschek hurried construction along caused expenses to soar to senseless proportions.

Apparently, there were two reasons for this haste: first, Kubitschek's term of office would expire in 1961, and according to the constitution he could not be president for two consecutive terms. He seemed eager to go down in history not only as the founder of Brasília but also as the one who completed it. Furthermore, this

tremendous effort, which had been built up and was being carried along by immense propaganda, was probably necessary in order to complete the work before public interest flagged. By the time the Brazilian people fully comprehended how many millions of cruzeiros were being poured into Brasília, the capital was already half finished. From the very beginning Kubitschek had done everything on such a lavish scale that to discontinue the project would have been even more wasteful than to go on with it.

Kubitschek, Brasília's driving force, and Niemeyer, the chief architect, are old friends from the time when Kubitschek was governor of the federal state of Minas Gerais. The fact that the third top man was also a close friend of Kubitschek, seemed to mark the project of Brasília, at least in the eyes of envious fellow-countrymen, as a matter of personal gratification for these three men.

The third man is Israel Pinheiro, the director of the Companhia Urbanizadora da Nova Capital, or Novacap—the government-owned building company without whose knowledge not a stone can be moved in Brasília. Pinheiro found a way of financing the building of the capital largely by the sale of campo land which once had been ridiculously cheap; it was the property of the government. Pinheiro divided the land into lots and sold it at 25,000 times its original value.

On the occasion of the official dedication of the city as the capital, on April 21, 1960, Pinheiro, the super-speculator, was made prefect of the city. According to his own admission, he did not exactly become poor in the land deals; as a matter of fact, he made the deal of his life. His friend Kubitschek enjoys the triumph of seeing a gigantic city grown in an area where formerly only thorny brush grew—he has handed the city over to his successor as a bombastic Kubitschek monument—even though it is burdened with a debt of 500 million dollars. His friend Niemeyer had an opportunity to figure in such large amounts of money and in such grand dimensions as probably no other architect ever could; whatever he saw in his imagination, he could see but a few weeks later in reality and growing up in immense proportions.

It would be unrealistic to expect that such great temptations would not leave some traces in these men who built Brasília. But it would be equally unrealistic to discard the capital as a senseless private enterprise of Senhores Kubitschek, Niemeyer, and Pinheiro, as an undertaking which simply devoured many millions of the country's funds. Without the constitution of their country, without the adventurous spirit of their people and the growing national enthusiasm, these men could never have built Brasília. This city, like most of the great communal efforts in the world, grew out of an

inextricable fusion of public and private interests, of daring ideas, petty selfishness, and a passion that moves mountains.

It is an exciting and tremendous experience to witness the birth of a capital city. The question is whether its fate will be similar to that of Akhet-Aten on the Nile, Samarra on the Tigris and its rather dull Australian contemporary, Canberra—will it perhaps never actually come to a flourishing? (At the time of its dedication only 1.5 per cent of all the administrative and government officials were able to begin their work in the new capital.) Or will Brasília grow into a gigantic city like other artificial capitals, such as Seleucia once, and later St. Petersburg and Washington? St. Petersburg quite obviously was the creation of one man's obduracy—it was built upon 100,000 corpses and on marshy grounds; yet it grew into a world-famous metropolis.

It is very likely that the historical significance of Brasília will be not so much in the field of architecture as in the area of colonization. Whatever one's opinion of the city's architecture may be, Brasília is impressive as an attempt to open up the Wild West of a vast country which heretofore had been almost completely uncultivated beyond its coastal region, and to make the untapped natural resources of this country available to man. The determination of a great people to accomplish this will probably be victorious in spite of all the criticism of Brasília's architectural style.

Even for the Greeks the city had already been closely connected with the beginning of colonization. Tsar Peter the Great made a big political move when he transplanted his capital. Portugal, with its long experience in the handling of colonies, has considered strengthening its position in restive Africa by moving the seat of government from Lisbon to Luanda (Sao Paulo de Loanda), the capital of Portuguese West Africa (Angola), which has officially the status of a Portuguese province. Brasília, an outpost of civilization in the wilderness, almost as if dropped by parachutists, is the most imposing one in a long line of attempts to complete the subjugation of the earth by man with the help of the city.

Not quite so keen are the ambitions of Chandigarh, the city that the Swiss architect Charles Edouard Jeanneret, now living in Paris and world-famous under his pseudonym, Le Corbusier, fully designed and built out of nothing.

When India was partitioned in 1947 two thirds of one of the richest provinces of the country, the Punjab, with its capital, Lahore, fell to Pakistan. Out of the eastern third was created the north-western Indian state of Punjab, which, however, did not have a capital. In 1948 Le Corbusier was commissioned to build a capital near the village of Chandigarh. The city was dedicated in 1953, and

in 1960 it had 180,000 inhabitants. Like Brasília, it is built with all the facilities required to house half a million people.

Chandigarh is picturesquely situated at the foot of the Himalaya Mountains, loosely spread over a fertile high plateau; the impression of even greater spaciousness is created by still existing gaps in the construction. Residential, cultural, amusement, administrative, and industrial districts are clearly separated, but in organic relation to one another. The residential areas are sub-divided into neighbourhoods that are inaccessible to all automotive traffic.

The city is still unfinished, and Le Corbusier is apparently no longer interested in the project. The inhabitants and the Indian press are in agreement that Chandigarh is not Indian in character, that it actually is impractical. In Chandigarh, Le Corbusier has in a characteristically imaginative way solved a problem which is, indeed, a burning one for European and American city planners: He has separated the automobile completely from the pedestrians. But there are only a minimal number of cars in Chandigarh; the predominant means of transportation are rickshaws, bicycles, and camels. Le Corbusier also had only the best intentions when he designed the residential buildings with a series of air holes in the outside walls, in order to provide some cross ventilation during India's hot summers. But since thanks to these holes anybody in the street can hear what is being said inside, the air-circulating system is offensive to the Indian feeling for privacy. Many people have angrily stopped up the holes.

The moral for the city designer: One cannot force happiness on man. Should one even try? And must one not really be quite a bit more than a city planner to determine what happiness really means?

Quite significant is the fact that for years it was difficult in Chandigarh to buy a map of the city. Most of the time it was either not in stock or out of print, because tourists and students eagerly took hold of what actually is handsome in Chandigarh—not the city itself, but its ground plan. How pretty the course of the streets, how imaginatively it all is thought out! Chandigarh is another version of the game of city planning, another example of planned beauty, and may be added to the list of designed cities which begins with Miletus and includes Brasília—and probably will not end there.

The lesson for the city builder: A plan of a city whose harmony becomes more apparent when it is hung on the wall as a map is not enough. We would like a city plan that is beautiful for those who live in it, for those who walk around in it. City planners, from Hippodamus down to Costa, Niemeyer, and Le Corbusier, have been tempted to try realizing an idea, an abstract plan as grand and perfect as possible, and have not cared particularly about

the human beings who could instil life into this plan. It should give food for thought that the Association of German Family Organizations in a declaration in 1960 deplored the "blueprint atmosphere" which so dominates many new, planned sections of a city.

A planned city can best be beautiful if it is not so ambitious that it wants to include the very last hut in the planning.

M

Chapter 4

THE CITY THAT DOES MAN JUSTICE

THE MOST inexcusable and disgraceful of all noises is the cracking of whips—a truly infernal thing when it is done in the narrow resounding streets of a town. I denounce it as making a peaceful life impossible; it puts an end to all quiet thought . . . Carters, porters, messengers—these are the beasts of burden amongst mankind; by all means let them be treated justly, fairly, indulgently, and with forethought; but they must not be permitted to stand in the way of the higher endeavours of humanity by wantonly making a noise.

Thus growled Arthur Schopenhauer in 1859 about the noises that he had to endure in his living quarters in Frankfurt. One can well imagine the fury that would seize him if he had to suffer the witches' Sabbath that cars, trucks, streetcars, loudspeakers, and concrete mixers today are producing in a big city. A time when the worst noise to be heard was the cracking of a whip seems positively idyllic to us.

When Greek Prime Minister Venizelos during his first term in office (1910 to 1915) ordered that in the larger thoroughfares of Athens vehicles had to keep to the right side, the Athenian coachmen berated him as a tyrant. They considered it an encroachment on their freedom that they should not be allowed to use the street wherever they could find space and wherever they would like to drive. To stop for a traffic light at an intersection even though no vehicle is about to cross one's route would have appeared sheer madness to the artless reasoning of the Athenian coachmen.

An eight-lane highway connects San Francisco and its suburb San Rafael, but after office hours it is often bottled up by bumper-to-bumper cars which can move neither forward nor backward. *Time* magazine reported in 1960 that a businessman who raises carrier pigeons as a hobby found it expedient to carry a cage with eight pigeons in his car, and that he released one of them now and then with a message to keep his wife informed of his progress.

British Minister of Transport Marples told the House of Commons in 1960: "When a ton of steel moving at a speed of thirty miles per hour and one hundred and sixty-five pounds of flesh

and bones that move at a speed of three miles have to share the same surface, accidents are bound to happen—and flesh and bones will always be on the losing side."

This is what we have accomplished. The automobile has invaded our cities and has made itself their master. Amidst the clouds of exhaust fumes, pedestrians hop about like scared rabbits. In streets which once were built by pedestrians for pedestrians, the man on foot may at best still be tolerated, but not infrequently he finds himself relegated to underpasses. Automobiles in broad daylight, people underground; it really is a rather grotesque reversal of logic and of the city's character.

The cars, on the other hand, have little chance to be happy about their tyranny over the cities: In never-ending columns they push through the streets of the old parts of the city, which were intended for the occasional passage of a horse-drawn cart. In the cities of Central Europe the surface covered by streets has doubled since 1900, but there are now twenty-five times more vehicles to use them. In New York or London a car may take an hour to move less than a mile in the business districts. Even in the packed streets of ancient Rome a pedestrian could get ahead faster. For millions of metropolitan people everywhere, it is the ever-recurring worry of their day, whether they will find a parking place. In Rome twenty people are fatally injured in traffic accidents every month. The most frequent cause of death among children is traffic accidents. In the streets and on the highways of the United States, cars have left in their wake an army of 1.3 million dead since 1900.

Unless we are willing in the near future to invest the billions necessary, the cities will be suffocated by the automobile and the pedestrian will be underground—where we find the slaves in so many novels dealing with the future. It is quite imperative that room be made for the automobile, but also that the automobile take second place after human beings.

What can—what should be done? City planners everywhere are in agreement on a number of steps that ought to be taken.

It is quite urgent to apply the throughway principle to the city's traffic. In other words, motor vehicles need streets where they move among themselves, as it were, unmolested by pedestrians, bicyclists, and streetcars—streets where neither crossings nor traffic lights exist. This has been accomplished already in many metropolitan areas in America, at least to some degree, and there are beginnings in Europe (Brussels, the Ruhr throughway).

These throughways, especially in older cities, will have to be constructed as either elevated or sunken streets. In 1960 Düsseldorf decided to build an elevated street half a mile long, to bridge at least the worst traffic congestion in the inner city. Detroit, world

355

centre of the automotive industry and after Los Angeles the city with the heaviest concentration of automobile traffic, has a project under consideration that provides for a network of eight-lane highways which are to be dug into the city like river beds.

The most logical system of elevated streets would be the one proposed for the automobile city "Motopia", a model of which was introduced to the public in 1959 by the English architect G. A. Jellicoe, who proposes that it be built near London as a satellite city. It would consist of a latticework of 55-foot-high apartment buildings, with connecting roofs forming roadways running the length and width of the city; instead of crisscross intersections there would be traffic circles to permit the uninterrupted flow of vehicles. Instead of narrow back yards between the rows of houses there would be landscaped tracts about 1,300 by 1,000 feet in area, with trees and lakes and stores, schools and churches.

This is quite an original idea, but one might find a few flaws: the plan would presuppose giant blocks of buildings; the exhaust fumes would descend upon the landscaped areas. In the foreseeable future this project may at best be realized on the small scale on which it was designed—namely, for a town of not more than 30,000 people.

Pedestrians in Motopia would no longer be run over—they would be poisoned. The poison-gas war of the cars against the pedestrians can be ended only by more drastic measures. Each year the 70 million motor vehicles emit from their exhausts 75 million tons of carbon monoxide, 9.5 million tons of hydrocarbon gas, 1.8 million tons of nitric oxide, and indeterminate amounts of sulphur dioxide and other gases. The cars in Los Angeles produce 8,000 tons of poisonous gas daily, accounting for 69 per cent of the unwholesome smog. It not infrequently happens that traffic policemen stationed in narrow squares of metropolitan cities are overcome by the concentration of noxious gases.

The American automotive industry has been trying, for some time now, to develop a filtering system that would eliminate exhaust fumes. But the filters that so far have been developed are quite expensive, not durable, and have a rather nasty odour themselves. The over-all solution of the noise and exhaust problems can be found only in the gradual renunciation of the combustion engine. For a long time the well-known American city critic Lewis Mumford has been pleading the case of the small car with electric motor for city traffic. In West Germany the Interparliamentary Work Group, which includes members of the federal Bundestag and the provincial Landtags, or Legislature, recommended urgently in 1959 that the automobile industry speed up the construction of electric cars, which produce little noise and no bad odour.

The reintroduction of the electric auto is hindered by the fact

that as yet there is no really efficient battery available. The development of such a battery will be a major factor in applying the only remedy that can save our cities from eventually turning into mere speedways and parking lots with a few timid houses strewn in—namely, a subterranean network of streets for automobiles. When cars no longer produce exhaust fumes, the construction of underground streets will be simplified and less expensive.

A group of American writers in the field prophesied in 1958 that in the year 2000 all motor traffic would be banned from the surface streets of the American city. The double-decker traffic lanes for cars and trucks would surface only at the edges of the city, and daily life would return to the street where it was at home for almost seven thousand years.

If such a prognosis comes from the classic land of the automobile, then it is high time that we Europeans, with our inferior surface street conditions on the one hand and more beautiful cities on the other, take a good look at the possibilities of putting the automobile underground. If we want our cities to remain cities, we have, after all, no choice. In Los Angeles 28 per cent of the main business area is taken up by streets, 38 per cent by parking lots and garages; thus a total of 66 per cent of all available space in the inner city is occupied by the automobile. Where is there still space for building? A parked car that has brought one person to the office occupies for eight hours a space of 108 to 162 square feet. The Soviet Union has as one of its goals providing each citizen with a *living* area of 108 square feet—and so far it is falling short of this goal. If cars are allowed to take up more space than people and the houses they live in, we may as well forget about improving our cities.

Sometimes, in the stillness of a hot Sunday, we discover how beautiful some of our cities are, with their squares and streets clear of parked cars, with no cars whizzing by—wide and silent is the city, the world of man, the memorial he built for himself.

When a book bears the title *The City Geared for Cars*, a certain wariness is in order; of course the city has to give adequate consideration to the car—but even more, it would seem, should it give man his due. Aside from this reservation, however, the German city planner H. B. Reichow has written an excellent book which has the best intention of being fair to the pedestrian. He pleads for eliminating all right-angle street crossing; they are to be replaced by streets merging at obtuse angles, and no two points of merging are to be opposite each other. Speed limits should not be indicated by traffic signs, but should be enforced by means of curves, with the degree of curvature effecting the desired slow-down. Pedestrians are entitled to their own footpaths with borders of greenery; if that is not feasible, kerbstones that are high enough to provide a barrier

against a car out of control could be a temporary solution. Where pedestrians still have to cross the street, Reichow suggests crossings that can be lowered; on red lights they would provide an insurmountable obstacle all the way across the street to deter the driver who might otherwise ignore the signal to stop.

The first attempt to separate pedestrians and automobiles completely was made in 1929 in the American garden city of Radburn, New Jersey. The entire city can be traversed on footpaths and walks surrounded by greenery with bridges and tunnels.

In Brasília there are three kinds of traffic artery—walks for pedestrians on greatly elevated sidewalks, which often are level with the second floor of the buildings; the two main axes, the main arteries for automobiles; and a separate network of streets for trucks. The intersection of Brasília's two axes is so arranged that one leads under the other; on a still lower level is the central bus station, from which escalators lead to the outside world. In the side streets and within the residential blocks, however, cars and pedestrians are not separated. The large streets for automotive traffic have no traffic lights and no intersections, yet many accidents do happen, simply because they are so straight and so tremendously wide that they invite speeding.

Many cities already have streets that are reserved for pedestrians: Bremen's Böttchergasse since 1927; after the Second World War, the great street of stairs in Kassel; some streets in Kiel and Hanover, and the famous Lijnbaan in Rotterdam. In the Lijnbaan, a number of walks with flower beds run right between two-storey shops in the very heart of the city that has risen with so much imagination and grandeur from the ruins of the Second World War. The so-called Barbican Project in the centre of London and a business section under consideration for the Moabit section of Berlin are designed to allow the pedestrian to walk in a network of streets on a level above the cars.

Many cities have closed certain shopping streets to automobile traffic, at least at certain times—for instance, Buenos Aires, Caracas, Amsterdam, Stockholm, Cologne, Essen, Dortmund, and Münster. There people can now return to the old ways of strolling, looking, and shopping, unmolested and surrounded by colourful goings-on, quite like the bazaar streets of the Orient.

A very much appreciated development is the increasing number of arcades and inner courts that have been designed with the pedestrian in mind. For centuries it was possible to walk across some parts of Salzburg without using the streets, by cutting through the connecting inner courts. At the beginning of the nineteenth century a favourite meeting place of Parisian poets, critics, politicians, and ne'er-do-wells was the Palais-Royal (the erstwhile palace

of Cardinal Richelieu), with its *cafés* and *boutiques* beneath the colonnades that surrounded the large garden-courtyard. Similarly arranged are the Royal Gardens in Munich.

There is perhaps nothing quite so urgent in city development as the removal of the automobile from the heart of the city, so that the heart once more can beat happily. Basel, Mainz, Trier, and Rome have been planning measures that would ban vehicular traffic completely from the centres of the cities. The centre of Rome includes the narrow, labyrinthine thoroughfares of ancient Rome.
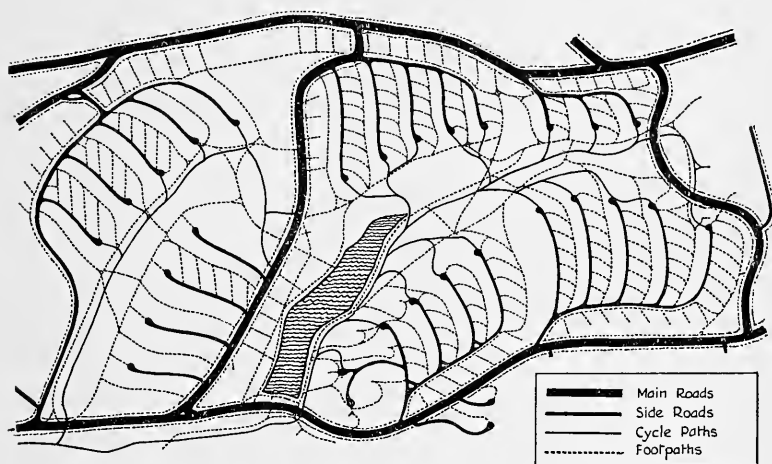
Traffic plan for Leverkusen–Steinbuchel (near Cologne): at first the layout appears to be haphazard, but a clear vein-like pattern can be discerned (H. B. Reichow, Die Auto-gerechte Stadt.).

In the largest German cities, however, the prohibition of motor traffic in the central sections is generally considered impracticable. Present city administrations limit themselves to detouring through traffic around the inner city and reserving small zones inside the city for pedestrians.

Perhaps one should not make too rigorous demands, but do first things first. Nothing comes to mind more readily and nothing is more important for our civic life than the revival of the great meeting ground that the Romans called the *Forum*, the Greeks called the *Agora*, the Spaniards call the *Plaza*, and the Germans call the *Marktplatz* (market place) or *Rathausplatz* (town hall place). Since we are unwilling, or perhaps unable, to build the two other age-old basic elements of the city—walls and cathedrals—it is all the more essential for the future of our cities that we revive the

359

meeting place, the place of sociable promenading, of seeing and being seen, of chatting and strolling about, without which the city would have little of its charm and vitality. This meeting ground should be square, with trees, flowers, fountains, and many benches, and should be surrounded by arcades with shops, restaurants, showrooms, and theatres. A large city should probably have more than one such square, but one of them ought to be the main square.

The Champs Élysées, the Kurfürstendamm in West Berlin, and the "Kö" in Düsseldorf are such great promenades, but because of their shape they are not particularly suitable for discussions or assemblies; and streams of noisy traffic constantly interrupt the flow of pedestrians.

Attempts to create new city centres that are more than mere crossroads and traffic bottlenecks are being made in various parts of the world. Since the Second World War all the large cities of the United States have had city-planning commissions that are trying to create new city centres, for the invasion of the automobile either has lessened the value of the old city centres or has prevented their development. The latter is the case in Los Angeles, where in connection with the thirty-two storey City Hall a sort of centre of gravity for the city is now being contemplated.

A daring idea, to which many city planners subscribe, is to give the city a green centre, a park located approximately where in ancient cities the temple or the palace was to be found. It is to be hoped that no city planner .will recommend demolition of prominent buildings in order to create room for a park. In predominantly industrial cities, or wherever completely new cities are growing, this project may have its advantages, even though one may wonder whether it can be the aim of city building to keep buildings out of the heart of the city—thus defeating its own purpose.

Quite independent of the question of a city centre is the idea of a liberal scattering of greenery all over the city. Most city planners support this idea; and the architects are almost in complete agreement that a system of interconnected green surfaces with pedestrian walks and children's playgrounds should be spread over the city. (At the present time, city dwellers have considerably less space for their children than for their cars.) Furthermore bushes and trees can help to dull noises and alleviate bad odours and should be inserted as a kind of filter between industrial and residential sections.

Several architects suggest using the green areas not for unproductive parks but for fields and pastures that could even contribute to supplying food for the city. This quite practical idea

could certainly be to the advantage of city children. On the other hand, we would not want to be without those wonderful parks that are such ornaments in cities like Berlin and Vienna, Hamburg and Munich, London and Genoa, Copenhagen and Helsinki, Los Angeles and Chicago. Moreover, the intermingling of urban and rural elements has many disadvantages about which we will have more to say elsewhere.

The Italian government in 1959 undertook to surround Rome with a belt of parks, lawns, forests, playgrounds, and picnic areas, in order to free the city, which is now again so overcrowded, from the grip of steel and concrete. Brasília has decided in favour of an encircling band of orchards and vegetable gardens, which to a great extent have already been laid out, mostly by Japanese settlers.

The scattering of green areas all over the city is to go hand in hand with the general loosening up of the city—its unravelling, its decentralization, its diffusion, as some of the experts term it. To accomplish this, it would be necessary to eliminate the interpenetration of industrial areas and residential sections, and to begin the rehabilitation of deteriorated, overcrowded buildings, streets, and even whole sections—especially those surviving from the Middle Ages and the early industrial era. City building, at least in the long-since-citified countries of Central and Western Europe, must consist largely of city rehabilitation.

The Swiss architect and city planner Hans Bernoulli has suggested that from the very beginning each section of the city be allotted only a certain life span, after which it should be torn down and completely rebuilt, with a different pattern of streets and a completely changed character. Only in such a way, he felt, could a city fulfil all its functions appropriately. That would be gradual rehabilitation in stages, the removal of the old according to a time-table. There is no doubt that with such a procedure the city could function efficiently—which is important; but it is not everything. Ancient Rome, with its horrible overcrowding, did not "function efficiently"—it only ruled the world! And there are certainly more essential things to be said about Athens, Florence, and Weimar than that they "functioned".

Over-evaluation of technical procedure combines here with the city planners' great temptation which we already mentioned: City planners quite understandably find more satisfaction in building than in preserving. Even if the city architect is a man of genius, it is to be expected that he will deem nothing that already exists to be as good as what he would build if only he were allowed.

Then there is the over-emphasis on hygiene. It is fine, of course, to strive toward the goal of having not more than 90,000 people living in any area of one square mile. (For comparison: 96,000

M*

people in Paris live in that amount of space, 388,000 in the nucleus of ancient Rome, and 775,000 in the slums of Calcutta.) Should one therefore demolish all the old-city sections that exceed this desirable density? One should indeed, if these sections are slum areas of the early industrial era, such as exist in London and the Altona section of Hamburg. But should this be done indiscriminately also where well-preserved old-city nuclei keep alive inspiring memories of an earlier time?

Not everything is beautiful that is new, and not everything that is unhygienic is ugly. Do we really want to destroy the mementoes of a growth that through the centuries culminated in the city as it is? Should we no longer be allowed to see that the cities *grew*? Shall our cities consist of standardized houses—model 1A to 7B, annual series 1960 to 1970? Should these cities be ruled merely by a social-hygiene manual?

Of course, the line must be drawn somewhere. One cannot tolerate an epidemic of typhoid fever, and that means, above all, that we have to undo the iniquities of the early industrial era. In Pittsburgh, where capitalism in its early days ran wild, as it did in Manchester too, entire slum areas have been torn down during recent years, to make room for more wholesome buildings. In Chicago the tracks of various railways originally ran along the shore of Lake Michigan, in some places a hundred of them. They were not removed, but the land was extended several hundred feet out into the lake, thus creating a lovely and spacious strip of shore with parks and promenades. When done in such a way, reconstruction makes sense.

Among the iniquities of the nineteenth century must be included the endless rows of four-storey tenement buildings which are still dominant in most large cities of Central Europe. All city planners are in agreement that these must be abolished. They will be replaced by houses surrounded by gardens. William Penn, who founded the colony of Pennsylvania and in 1683 laid out its capital, Philadelphia, as a refuge for the persecuted Quakers, had the same goal in mind, but his plans for an "open city" were never carried out.

The one-family houses that are becoming more and more predominant in the United States are set in green surroundings. So are the semi-detached houses that have been built in Europe by the hundred thousand since the Second World War; the quadratic residential blocks in Brasília; the standardized housing structures that Le Corbusier built in Marseilles, Nantes, and West Berlin; and the tall apartment houses that enjoy growing popularity everywhere in the world. In 1960 construction was begun in Chicago on two round towers, which in their lower eighteen storeys contain

362

only garages, while the forty upper floors contain 450 apartments with terraces.

In West Germany, England, Sweden, and other European countries, the favourite form of construction for uniformly planned new city developments has turned out to be a strongly accented gradation in height. The Hansa section in West Berlin, the Neue Vahr development in Bremen, the garden city of Bogenhausen in Munich, combine in a comparatively narrow space rows of one-storey houses for families with small children, apartment houses of customary height, and residential towers ranging from twelve to twenty-two storeys, with small apartments and bachelor suites. The tall buildings provide not only accents for the city but also space for many people in a small area, which means that, without changing the density of population, space can be spared for green surfaces. In a development in the Paris suburb Pantin, apartment towers with landscaped grounds rise within encircling belts of one-storey houses.

In Paris and many other European cities, skyscrapers and tall buildings are built mostly, or in some cases even exclusively, on the outskirts of the city—a reversal of the usual practice, and most welcome, since it leaves the beloved and familiar silhouette of one's city untouched. Even for newly designed developments or city districts, some projects place the tall buildings around the outer limits, while the one-family houses are chosen as the development's nucleus; the explanation for this arrangement is that people who have no gardens of their own are more in need of the opportunities for strolling which the peripheral location offers. As a matter of fact, there are projects for future cities which call for a ring of tall buildings to surround an entire city in the manner of a fortress wall, while the inner area becomes more and more level toward the centre.

If, on the other hand, tall structures are also to be built in the centre of town, it will have to be determined whether this centre contains historic buildings that should not be destroyed. This is a question of taste and perhaps of tact. Many Americans, Russians, and Brazilians would, no doubt, think nothing of building sky-scrapers all around the cathedral of Cologne—skyscrapers which in their opinion would far excel the old-fashioned church. Many people in Cologne, however, believe that in this century no building comparable to their Dom has been constructed anywhere.

Everyone will probably agree that if one wishes to go on living in the shadow of the cathedral one must not permit houses as tall as the cathedral to be built in its vicinity. One will have to relegate those residential and office towers to the outskirts of the city or leave them, as a compensation, to those cities which do not have a Dom or belfry.

363

That modern city planners at times revert to the most ancient traditions is proved by their recommendation to return to the earliest form of the city house: the house that turns a windowless wall to the street and features an inner court as its core. This is how one lived in Ur, Babylon, and Mohenjo-Daro, on the island of Crete, in ancient Greece, and in Carthage. In Rome the inner court was called an atrium. The Roman town houses had small yards, the villas had courts surrounded by pillars (peristyles) with luxuriant green lawns and bushes similar to those of Pompeii. In Baghdad too the gardens were in the centre of the building. Originating in Spain, the orientation of the house toward the yard has become customary in almost all Latin American countries, where the inner court, called a patio, resembles a garden. In many villas where arcades extend around the patio on two floors one realizes how lovely and practical such an inner court can be.

Atrium houses too are semi-detached buildings, with party walls on one, two, or even three sides; they are comparatively inexpensive and economical of space. Compared with the semi-detached houses of the Middle Ages, where the yard served only as a workshop and storage space and was located behind the house, and compared also with the semi-detached houses that line the London streets, the atrium house possesses an inestimable advantage—it assures complete separation from the neighbours, detachment, privacy.

Very much as it did in ancient Babylon, the layout of the atrium house protects against being seen, and against dust and wind. It also protects against a nuisance that the inventor of this type of house never knew—street noises. Even the worst traffic noise is no more than a distant hum when it reaches the family's green "living-room" on to which all windows open. A step in this direction is the apartment house that turns its front away from a street that is sunless and unattractive.

Although it would seem that the privacy, the complete detachment from neighbours that is assured by the atrium house would be highly desirable to most metropolitan city dwellers, we hear in most of the new developments in European and American cities a word that emphasizes the exact opposite: the word *neighbourhood*.

Following English and Swedish examples, new city developments are almost exclusively sub-divided into "neighbourhoods", for each of which there are a school, a kindergarten, a playground, and a shopping centre. In addition to this indisputably sensible organizational purpose, the neighbourhood is intended to break down the shapeless agglomeration of people and houses into self-contained communities, in which a civic spirit can grow and where a person can feel at home.

Unquestionably, this arrangement has many advantages. It meets

the wishes of many city dwellers who have had their own experiences of what Goethe meant when he wrote from Venice in 1786, "One is nowhere more alone than in a crowd." The idea certainly could further community spirit and interest in public affairs, it might reduce crime and counteract the agitation of demagogues, who often found it very easy to arouse the restive masses of impersonal giant cities and thus brought much unhappiness to mankind—we are thinking of Rome, Constantinople, Paris, St. Petersburg, and Berlin. When a city becomes too large, many of its inhabitants tend carelessly to toss away the great urban achievement, freedom.

Nevertheless, the word *neighbourhood* causes a slight feeling of uneasiness in many people who are drawn to the city by the very opposite of neighbourliness—freedom from the curiosity and gossip of neighbours, and the right to remain anonymous. Friedrich Sieburg lauded Munich as the only city in the West Germany of 1960 "where one can be anonymous". The German sociologist Helmut Schelsky believes:

All organized community development which deprives the individual of his privilege to choose is rejected by the city dweller. He does not wish to be tied up with any sham neighbourhood. The so-called loneliness and the feeling of being lost have long since been converted by the city person into an accepted state of affairs—namely, into the unencumbered isolation of his private living sphere. The growth of developments and of small houses outside the large city is an expression of this desire for privacy, and it does not by any means indicate a desire for new community ties.

Even if one does not go as far as Schelsky, who interprets these characteristics as more or less those of all city dwellers, one cannot avoid the question, Is the division of the city into neighbourhoods to be considered the one and only recipe for salvation? Should we really consider the small town as an advance over the metropolis? Does anybody honestly believe that a hundred small towns would add up to one cosmopolitan city? Or is there a plan afoot to discard cosmopolitan cities altogether?

If only someone would save us poor city dwellers from schemes and systems! Neighbourhoods—fine; no neighbourhoods—all right too. Let anybody who wishes to have "neighbours" in the old sense of the word move into a "neighbourhood"; but he who considers freedom from neighbourly tyranny an essential element of metropolitan living certainly has the right to demand that some sections of the city be planned to meet his needs—despite the dedicated planners who would assure him that their architectural

arrangements alone will make him want to establish neighbourly relationships.

The dubious attempt that has been made since the Second World War to include in the metropolis the advantages of small-town living has led to numerous experiments with the satellite city. The satellite is supposed to be located within the radius of the metropolis, but permanently separated from it by a green belt. Unlike the customary suburb, it has its own factories and commercial enterprises, thus saving residents the long daily trip to work in the overcrowded metropolis. The satellite city is not a "for sleeping only" town, but to a considerable degree an independent city organism. In this way it is expected to contribute greatly to the decentralization of city areas.

The beginning was made in England in 1946 with the New Towns Act, which laid the legal and economic foundations for building satellite cities. Around London a belt of eight satellites of from 30,000 to 80,000 residents has by now been developed. Of these, Harlow and Crawley are the best known. They consist of houses of different heights, scattered among green surroundings and forming neighbourhoods of 5,000 to 6,000 people. The automobile roads and the pedestrians walks are separated as far as possible, and ample parking places are provided. The factories have colourful façades and are surrounded by trees, hedges, and lawns. The market place of Crawley, with its coloured flagstones, its trees, its arcades with stores and cafés, and the office buildings surrounding it, may well be called a successful revival of the ancient Forum, especially since it is reserved for pedestrians.

Approximately ten miles west of Stockholm, the satellite city of Vällingby was built in 1951; it consists mainly of residential buildings and is particularly known for its shopping centre, which is arranged in one immense block. Trucks are prohibited in the centre of the city; deliveries are made via subterranean streets.

Eighteen to twenty-four miles outside the city limits of Moscow a ring of seven or eight satellite cities is planned; construction of the first one was begun in 1959. These satellites are being built according to Scandinavian models and each one will have from 45,000 to 70,000 inhabitants.

Even for Brasília, which still has a long way to go toward full occupancy, a ring of satellites has been under consideration from the very beginning. They are meant to house the industry with which the metropolis does not wish to clutter itself, and there, at least, one will be allowed to build without having to ask Oscar Niemeyer's approval.

Helsinki has a satellite, and there are other cities with satellites in the planning stage, such as Munich, Cologne, and Kassel. A

satellite to be named Langwasser is under construction near Nuremberg, on the grounds where formerly the national meetings of the Nazi party took place.

Good intentions, however, often do not get much beyond the building organizations' search for inexpensive land. And besides, even the best intentions have their limitations. We may well ask, for instance, where in the Ruhr district or in the English Midlands industrial area it would be feasible to build satellites. They would only add to the sprawling of these enormous "cityscapes" far out into the land.

But even more significant is the fact that London, the only city with a complete ring of satellites so far, has not been relieved by them, at least not to a considerable degree. The optimists had hoped that through resettlement into the satellites London's population and its crowded conditions would diminish. But both have grown. While 100,000 new jobs were created in the daughter cities, 120,000 were filled in London. The influx into the city has been greater than the capacity of the satellites to absorb and house people.

All that can be said for satellites, then, is that they cannot retard the growth of cities, only modify it, and that they provide relief only to the extent that without them matters would be still worse. However, since they are usually designed with many green patches and especially since they establish industry within their own confines, they appear to be more sensible than the suburbs that developed in the era of random expansion.

As seen from the point of view of the countryside and the village, the satellite accelerates the already frightening growth of metropolitan areas in an ominous way. The green belt separating it from the mother city does not make the satellite a rural village. But the satellite does make the rural area that it pre-empts a part of the city. This urbanization of the countryside and of the village can hardly be stopped. One may wonder whether there is not enough reason for trying to brake this speed instead of increasing it—or at least for trying to keep it within certain limits.

Urban comfort has long found its way into the village—in Sweden, for instance, in the Netherlands, in Canada, and in Central Europe. For a long time, factories have existed in villages of Saxony and Württemberg; and in south-west Germany an endless chain of industrial villages stretches along many rivers. In Germany and in almost all other industrial states, most of the rivers have been converted into canals; the power stations along these canals have to supply the metropolitan areas with electricity—and, in return, the city sends its waste waters streaming over the land.

Arable land is steadily being buried under civilization's steel and concrete. How far beyond its own limits the influence of the city

reaches is indicated by the TV antennae on the rooftops, the Coca-Cola posters at the grocery stores, and the modern apartment buildings set among farmhouses. Even from the viewpoint of space itself, the limits of the city move farther and farther out into the country. In Switzerland new houses and streets claim close to eight square miles of heretofore arable land each year. In North Rhine-Westphalia, every year more than thirty-eight square miles of rural land are swallowed up by the city. Assuming that at the same time more and more pastures and woods are drawn into the city, the outlook is for a uniform landscape, with a citified country-side and a countrified metropolis. Will this be—can this be allowed to be—the aim of the city of tomorrow?

Chapter 5

A WORD IN FAVOUR OF SIZE

WE HAVE arrived at the end of our journey through seven thousand years of city history, through cities of yesterday and cities of tomorrow. Let us sum up:

Planned cities are nearly as old as the city itself. A plan was, however, dispensable as long as the growth of the city proceeded slowly and, at the same time, temples and walls were properly respected. With the temple as its heart and symbol, and the walls as a clear demarcation line, the city was a well-organized, healthy entity.

Industrialization and the population explosion have destroyed the organically growing city or have relegated it to a shadow existence. Unrestrained striving for gain during the first phase of the industrial era produced the ugliest cities and city sections in history. The free interplay of forces to date has proved incapable of bringing the city's functions into harmony, let alone giving the cities features of their own. For city planning, the designs provided by building associations or property development companies no longer are satisfactory.

If our large cities are not to suffocate or to be overrun by thundering fleets of trucks, we have to make sacrifices and invest billions in well-thought-out programmes of rehabilitation. In our day, the work of the city planner is among the most important tasks that society can entrust to anyone. The budgeting of those billions would be simplified if governments and legislatures would allow a city to share the results of its own high productivity, instead of skimming off all the collected taxes save for a very small percentage. This is one of the basic demands—and well justified it is—of the German Städtetag (Council of Cities). It certainly is high time to throw overboard laws and sets of values that still regard the rural community as the pillar of the state. All political parties should realize by now that the large city is no longer the exception, but is, rather, the rule in modern industrial society and, moreover, the backbone of the state.

The city planners need not only billions, but also freedom of action and trust placed in them. The American sociologist David Riesman says in his book *The Lonely Crowd*:

369

With their imagination and bounteous approach they have become, to some extent, the guardians of our liberal and progressive political tradition, as this is increasingly displaced from state and national politics. [In their best work] we see expressed in physical form a view of life which is not narrowly job-minded. It is a view of the city as a setting for leisure and amenity as well as for work. But at present the local power of the local veto groups and the vicious urban circle of taxes, flight to suburbia, and more taxes put even the most imaginative of city planners under great pressure to show that they are practical, hard-headed fellows, barely to be distinguished from traffic engineers.

The city planners also need clearly defined authority to use desirable land, without fear of being thwarted by the anti-social obstinacy of some despotic ruler of a one-hundred-square-yard plot of ground.

Many of the most beautiful cities in history were able to grow because a priest-king, a godlike ruler, a tyrant, had the power of decision as to the land that was needed. We cannot and do not want to return to these conditions, but a compromise should be possible between the highly valued institution of private property and the equally estimable treasure of a beautiful city—a compromise that does not require that all the sacrifices be made by the community, as has been the case for a long time, but requires the individual too to make his contribution. The city is a social organism; its present chaotic state can to a great extent be traced back to the private-lot monarchy which was created by the French Revolution and modern democracy as well.

With its clear-cut, though never brutal, eviction laws, Rotterdam has shown since the Second World War how such compromises can be made. It is worth while to study the results that have been achieved in Rotterdam. West Germany finally took its first step in this direction in 1960 with its Federal Building Law.

Now and again, our confidence in the guild of the city planners is a little shaken by the fact that we have historic as well as contemporary examples of planning as a sort of game, of planning merely for joy of planning, and of the rigid scheme. Purely schematic planning and patent prescriptions cannot solve the problems of the city.

The city does not need only the preservation and care of monuments, nor does it need only glass and concrete—not merely the old nor merely the new; but each for itself or both together.

The city does not need only straight streets that are collectively exhausting and lifeless, nor does it need only curved streets whose curvature is determined by the requirements of the automobile; the

city needs all kinds of streets. And for the pedestrian there should be not only winding paths, but also spacious boulevards.

The city needs more greenery, but it does not need that everywhere; it should preserve a few old lanes, and it should now and then remain the stone world that man created. We neither wish to have storage bins for people, nor wish to have cities which hide completely behind trees as if they had a bad conscience—there is nothing wrong with being a city.

The city needs more sunshine and more hygiene. Hygiene is important, but it is not the highest of values. A certain amount of disorder is part of life and therefore also part of the city. We do not strive to get order into the chaos of today for the sake of creating a perfectly functioning, dry-cleaned world of boredom for tomorrow.

The city cannot benefit by total planning, but by planning the focal points, as most great architects in city history have done: one plans the Acropolis, St. Peter's Square, the Champs Élysées, one creates approaches and thoroughfares, and leaves it to the rest to take care of itself. Because of the urgent needs of our overcrowded cities, a little more planning than that may be necessary, especially since all planning has been neglected for much too long a time. For instance, besides the monumental buildings the network of streets should be part of the planning as well as the lawns and parks and the industrial sites. But not everything, certainly, has to be planned.

If, for instance, the height and placement of the residential buildings are already decided by a general plan, the choice of style for these houses could be left to the discretion of the individual builders and architects. If a single housing organization converts a meadow into a stereotyped development for twenty thousand people, it is not so much a contribution toward decentralization of cities as it is an encouragement to the concentration of economic power and sometimes to architectural standardization.

Every city planner should be aware of his own limitations. The things we like in many cities can develop better without planning. If nothing worse can be said about the historic city centres than that they get into the way of traffic, we may well ask whether the developed city or the rolling car is to be preferred.

There is no need to worry about traffic; it will not die out. But once a great old structure is demolished, nothing can ever make it come to life again. It is always the same old problem: Should a five-hundred-year-old oak tree be cut down because a pole for street lighting needs that particular space? We think not. If cars and beautiful city nuclei get into each other's way, then the car has to yield. If the conflict is between cars and city centres

371

that are unattractive or inconsequential, the decision may be different.

In the long run, the auto belongs *underneath* the city. The subterranean parking garage shows the way into the future, the tall parking buildings are madness. Is it not enough that cars occupy all the streets and squares—do we now have to build towers for them?

To ban vehicular traffic from a few large squares and also from a few shopping streets is one of the most urgent tasks of city building—if the city is to be regarded as something more than merely an obstacle or a kind of roadside resting place for motorists, or a large drive-in circus. The city is an invention made by pedestrians for pedestrians; it is not an automotive world, it is a human world; and that is what it should remain. The parking place cannot supplant the market place.

The market place is indeed irreplaceable, and city planners should direct their attention to it. Most of them are doing so already, but they will have to ask the citizens for a great deal of money, and the motorists for their understanding.

The champions of decentralization and of greenery, of neighbourhoods and satellites, quite often go too far. If the city becomes too much interspersed with countryside, it loses its urban characteristics —and at the same time it claims so much space that the country loses its rural characteristics. This would be disastrous for both city and country. Electricity is created by friction. If one prevents human beings through too much decentralization, from crowding and pushing and jostling each other, there will no longer be those tensions to which the city owes its vitality, its economic, political, and cultural supremacy.

The city thrives on its difference from the country. In bygone days it rose above the surrounding country with its powerful walls; today it still does so through its amassing of houses, people, production centres, and wealth. The contrast between denseness and openness, between crowding and empty spaces, between the world of man and the world of nature, between unrest and stability, between creating and allowing to grow, between culture of the spirit and culture of the soil, between being free and being rooted—this contrast, this productive tension between opposites, is indispensable for city and country, and is necessary for every civilization. Whoever eliminates the opposites does away with both the village and the city. The only undesirable thing is over-concentration. Removing *all* concentration is tantamount to killing the city.

Do we want to kill the cities? The twelfth-century Cistercian abbot Saint Bernhard of Clairvaux, famous as the initiator of the Second Crusade, wanted to do just that—and with him went many

a pious zealot. Bismarck too, and Tolstoy, and a number of other great men felt hostile toward the city. And, finally, in some countries there are political parties that bear a grudge against the city because usually they get fewer votes there than in rural communities.

We want the city to live. Consequently, we have to accept its contrast to the country, and also a certain amount of crowding and jostling.

We also have to give the cities firm boundaries. City planning is not enough. Far more than heretofore do we need rural planning and planning of the countryside—the early demarcation of areas into which no city may be allowed to flow over.

Berlin's city planner Karl Otto remarks in this connection:

> City and rural areas can be made to harmonize only if the planning area—beyond the city limits—extends into a larger sphere, into a realm that is economically and geographically uniform; there the interests of the country and those of the city are considered of equal value. Consequently, the new city should not be planned from the inside outward—land-hungry as heretofore; the planning should rather be done from the outside inward.

In much the same way that the law has set aside areas as sanctuaries for the protection of wildlife, it is legally and technically possible to establish federal sanctuaries for the villages—areas where neither factories nor apartment houses are allowed, and where nobody is permitted to settle unless he has a business or trade or profession that is needed in the village.

This may sound utopian or like an insufferable guardianship, but many steps are being taken in this direction, under the building regulations of many states (restricted areas where building is not permitted), and in addition a certain amount of economic planning will be unavoidable, because the world population is growing while the land is not. For the overcrowded countries of Central and West Europe, south-east Asia, and parts of the United States, such measures offer the only possibility of retaining a healthy distribution of population and of saving the cities. A population consisting merely of farmers rooted to the soil would be spiritually dead; the highest form of culture and civilization is bound up with the city, the realm of rootlessness. On the other hand, a population consisting only of rootless metropolitan people might collapse politically—at least that happened in ancient Rome.

An overcrowded city is ungainly and unhealthy. But if it is surrounded by uncluttered country, it could be altogether and in the long run more beautiful and healthier than if the overcrowding were lessened by allowing the city to spread over all the land and

to destroy it. Parks in the city are important, but the green country-side around the city is infinitely more important. The city needs boundaries.

In 1913 the English sociologist Patrick Geddes drew up a scheme of city development according to which the rise and fall of a metropolitan city has five stages:

1. *Polis*—the early city.
2. *Metropolis*—the large but healthy city. In Greece the mother city which out of its abundance of strength created colonial cities (Athens, Corinth).
3. *Megalopolis*—the unhealthy, oversized city with a tendency towards megalomania (Rome before the Christian era).
4. *Parasitopolis*—the parasitic city which drains an entire country of its lifeblood (Rome during the Imperium).
5. *Pathopolis*—the diseased, shrinking, dying city (Babylon after Alexander the Great's death, and Rome in the fourth and fifth centuries of the Christian era).

In 1938 Lewis Mumford, a pupil of Geddes, saw the sequence thus: Metropolis, Megalopolis, Tyrannopolis, and finally Necropolis, the dying cosmopolitan city, the sepulchre of a culture, the city of the dead, such as the Pharaohs built right next to their cities.

Oswald Spengler also believed that the development of cities followed an inevitable pattern; that, together with the culture, they are bound to perish after having unfolded as the last and most attractive blossom on the tree of this or that particular culture, as the transition to decline. "The stone colossus of the cosmopolitan city," he wrote, "appears at the end of the life span of each great culture. Man, the cultural being, emotionally formed by the land, is taken possession of by his own creation—the city; he is being made its creature, its executive organ, and finally its victim."

Shall it, then, be said of our cities as it once was said about Sodom and Gomorrah, "The Lord will destroy this city"? Shall the hosts of angels sing hallelujah over our downfall?

We do not know. But we suspect that the philosophers of culture may be exposed to the same temptation as the city planner: Their delight in a pattern sometimes carries them too far. Arnold Toynbee denies that one can draw a parallel between the development of a culture and the blossoming, maturing and dying of an organism. He thinks that there is no reason to assume that the Occidental world will have to go the same way, simply because all other cultures have perished or are on the wane.

Unless one is entranced by a system, one cannot presume, after a survey of over seven thousand years of city history, to make rules

concerning the duration of a city's life or the decline of cities. Babylon was levelled four times, and each time it rose again. It finally died more or less of two chance events: the sudden death of Alexander the Great and the founding of Seleucia, the rival city. During the early Middle Ages only a scarcely recognizable spark still glowed in Rome, but at the beginning of modern times it adorned itself with buildings which are by no means inferior to those of antiquity, and it has long since regained the status of a cosmopolitan city. Damascus has been alive for roughly five thousand years.

Besides short-lived cities such as Nineveh or Samarra, there have been those that persevered for millenniums. Moreover, there are signs that seem to indicate that the vitality of the cities has even increased in our time.

The greatest war of destruction against cities since Tamerlane, the Second World War, did not blot out a single city completely. The German cities behind the Iron Curtain are heavily damaged and are fighting for their survival, but they are alive; and all the former vast stretches of ruins in West Germany and Japan, in England and Holland have now more inhabitants than they had in 1939.

Formerly, rivers that changed their course, harbours that silted up, and herring that disappeared caused great cities to die. Today, we have canals, dredges, and the possibility of creating new bases for existence by developing new industries. The cities of the gold miners and uranium prospectors are permitted to die because they were creations of the moment; but the Ruhr district will not become extinct because the demand for coal has diminished. With diligence, experience, and the necessary capital one can develop a new industry anywhere, especially since new fuels, new sources of energy, can provide power with little or no dependence upon geographical location. Thus, industry which corrupted the familiar city image, is nevertheless the founder and the preserver of the city.

If we finally look at the rapid growth of the world's population and its thrust into the cities, we cannot but come to the conclusion that never before have conditions been as favourable as they are today for the continued existence of cities. That in itself does not mean much, because for millenniums destruction has been swinging its whip over the cities. Today atomic weapons are lying in wait, but they are no worse a threat to the cities than were Genghis Khan's hordes and the Black Death; both eradicated entire cities, or at least their inhabitants.

The world needs peace. If mankind does not run blindly into a third world war, we will not have to worry *whether* the cities will live but *how* they will live.

375

It is up to us to find the right way, and, having found it, to set out on it resolutely. If we hesitate or err now, we may indeed condemn our grandchildren to a life in chaotic city agglomerations surrounded by unimaginable ugliness in the midst of unbridled noises and sickening odours.

To choose and then to follow the right way demands imagination, perseverance, and great sacrifice. At its very outset it calls for undaunted belief in the great city, the mother of culture, the birth-place of freedom and justice, the glittering playground of life, man's world of stone without which he, for better or for worse, in lowliness and exaltation, would never have become what he now is.

BIBLIOGRAPHY
AND INDEX

BIBLIOGRAPHY

PART ONE

CHABOT G., *Les villes*, 1948.
EGLI, Ernst, *Geschichte des Städtebaus*, 1960.
GEDDES, Sir Patrick, *Cities in Evolution*, 1913.
GEORGE, Pierre, *La ville*, 1952.
HERZFELD, Hans, *Das Hauptstadtproblem in der Geschichte*, 1952.
KIRSTEN-BUCHHOLZ-KÖLLMANN, *Raum und Bevölkerung in der Weltgeschichte*, 1956.
KÖNIG, René, *Grundformen der Gesellschaft: Die Gemeinde*, 1958.
LAVEDAN, Pierre, *Histoire de l'urbanisme*, 1950; *Géographie des villes*, 1959.
MUMFORD, Lewis, *The Culture of Cities*, 1938.
PIRENNE, Henri, *Les villes et les institutions urbaines*, 1939.
RATZEL, Friedrich, *Politische Geographie*, 1897. *Die Erde und das Leben*, 1902.
SAARINEN, Eliel, *The City, its Growth, its Decay, its Future*, 1943.
SMAILES, A. E., *The Geography of Towns*, 1953.
SOMBART, Werner, *Der Begriff der Stadt und das Wesen der Städtebildung*, 1907.
SPENGLER, Oswald, *Decline of the West*, 1932.
TAYLOR, G., *Urban Geography*, 1949.
TOYNBEE, Arnold J., *A Study of History*, 1933–61.
VELTHEIM-LOTTUM, L., *Kleine Weltgeschichte des städtischen Wohnhauses*, 1952.
WEBER, Max, *The City*.

PART TWO

BATES, Marston, *The Prevalence of People*, 1955.
BREASTED, J. H., *A History of Egypt*, 1905 (ed. rev. 1912).
DIEULAFOY, M., *Les antiquités de Suse*, 1913.
DINGLER, Hugo, *Von der Tierseele zur Menschenseele*, 1941.
GARSTANG, J., *The Story of Jericho*, 1940.
HEINRICH-FALKENSTEIN-LENZEN-ZIEGLER, *Ausgrabungen der Deutschen Forschungsgemeinschaft in Uruk-Warka*, 1953.
KELLER, Werner, *The Bible as History*, 1956.
KÜHN, Herbert, *On the Track of Prehistoric Man*.
LANGDON, Stephen, *Excavations at Kish*, 1924.

Moortgat, Anton, *Geschichte Vorderasiens*, 1950.
Moret, A., *The Nile and Egyptian Civilization*.
Pillet, M., *Thèbes*, 1928.
Rostovtzeff, Mikhail, *A History of the Ancient World*, 1926–28.
Scharff, Alexander, *Geschichte Ägyptens*, 1950.
Schliemann, Heinrich, *Selbstbiographie*, 1955.
Spengler, Oswald, *Zur Weltgeschichte des zweiten vorchristlichen Jahrtausends*, 1937.
Wheeler, M., *The Indus Civilization*, 1953.
Woolley, Sir Leonard, *The Excavations at Ur*, 1929.
Young, A. M., *Troy and her Legend*, 1948.

PART THREE

Bamm, Peter, *Early Sites of Christianity*.
Burckhardt, Jacob, *Griechische Kulturgeschichte*, 1902.
Carcopino, Jérôme, *La vie quotidienne à Rome à l'apogée de l'empire*, 1939.
Charles-Picard, G., *La vie quotidienne à Carthage au temps d'Annibal*, 1958.
Contenau, Georges, *Everyday Life in Babylon and Assyria*.
Cottrell, Leonard, *Lost Cities*, 1957.
Curtius, Ernst, *Griechische Geschichte*, 1889; *Stadtgeschichte von Athen*, 1891.
Curtius, Ludwig, *Das antike Rom*, 1943.
Droysen, Johann Gustav, *Geschichte Alexanders des Großen*, 1925.
Ennen, E., *Frühgeschichte der europäischen Stadt*, 1953.
Evans, Sir Arthur, *The Palace of Minos at Knossos*, 1936.
Fabricius, K., *Das antike Syrakus*, 1932.
Fritz-Andrae, *Der Babylonische Turm*, 1932.
Fustel de Coulanges, Numa, *La cité antique*, 1910.
Gsell, Stephan, *Histoire ancienne de l'Afrique du Nord*, 1928.
Hërodotus, *Histories*.
Koldewey, Robert, *Das wiedererstehende Babylon*, 1925.
Layard, Sir Austen, *Nineveh and its Remains*, 1849.
Mommsen, Theodor, *History of Rome*.
Paoli, U. E., *Das Leben im alten Rom*, 1948.
Pöhlmann, Robert von, *Die Übervölkerung der antiken Großstäde*, 1887; *Die Wohnungsnot der antiken Großstädte*, 1911.
Rostovtzeff, Mikhail, *The Social and Economic History of the Roman Empire*, 1926.
Schubert, W., *Ägypten von Alexander dem Großen bis auf Mohammed*, 1922.
Thucydides, *The Peloponnesian War*.

Unger, E., *Babylon. Die Heilige Stadt nach der Beschreibung der Babylonier*, 1931.
Wucher, Albert, *Kleine Papstgeschichte*, 1957.
Zehnpfund, R., *Die Wiederentdeckung Ninives*, 1903.

PART FOUR

Burckhardt, Jacob, *Civilization of the Renaissance in Italy*, 1944.
Bützler, Th., *Kleine illustrierte Geschichte der Stadt Köln*, 1950.
Cellini, Benvenuto, *The Life of Benvenuto Cellini*, 1949.
Cloud, F. D., *Hangchow, the City of Heaven*, 1906.
Dölger, Franz, *Byzanz und das Abendland*, 1959.
Endres, F., *Geschichte der Freien und Hansestadt Lübeck*, 1926.
Ferdinandy, M. de, *Tschingis Khan*, 1958.
Freytag, Gustav, *Bilder aus der deutschen Vergangenheit*, 1927.
Glaize, M., *Les monuments du groupe d'Angkor*, 1948.
Guichot y Sierra, *El cicerone de Sevilla*, 1925.
Haller, Johannes, *Die Epochen der deutschen Geschichte*, 1926.
Hearn, G., *The Seven Cities of Delhi*, 1928.
Kayser, E., *Deutsches Städtebuch*, 1939.
Kretschmayr, H., *Geschichte von Venedig*, 1934.
Le Strange, G., *Bagdad during the Abbasid Caliphate*, 1924.
Lütge, G., *Deutsche Sozial und Wirtschaftsgeschichte*, 1952.
Mayer, R., *Byzantion–Konstantinopel–Istanbul*, 1943.
Ostrogorsky, G., *History of the Byzantine State*, 1956.
Pagel, K., *Die Hanse*, 1952.
Panella, A., *Storia di Firenze*, 1949.
Perckhammer, H. von, *Peking*, 1928.
Pirenne, Henri, *Economic and Social History of Medieval Europe*, 1936; *Histoire économique de l'Occident médiéval*, 1951.
Planitz, H., *Die deutsche Stadt im Mittelalter*, 1954.
Pölnitz, G. von, *Venedig*, 1951.
Polo, Marco, *Voyages*.
Pörtner, Rudolf, *Mit dem Fahrstuhl in die Römerzeit*, 1959.
Prawdin, Michael, *Mongol Empire, its Rise and Fall*, 1963.
Ranke, Leopold von, *Die römischen Päpste*, 1953.
Sarre-Herzfeld, *Die Ausgrabungen von Samarra*, 1948.
Schäfer, Dietrich, *Die deutsche Hanse*, 1943.
Schmitthenner, H., *Chinesische Landschaften und Städte*, 1925.
Schneider, A. M., *Byzanz*, 1936.
Schneider, Bruno, *Friedewirkung und Grundbesitz in Markt und Stadt*, 1913.
Smolik, J., *Die Timuridischen Baudenkmäler in Samarkand*, 1929.
Sohm, Rudolph, *Die Entstehung des deutschen Städtewesens*, 1890.
Werveke, H. van, *Brugge en Antwerpen*, 1941.

ARENDT-FADEN-GANDERT, *Geschichte der Stadt Berlin*, 1937.
BAUDIN, Louis, *Les Incas du Pérou*, 1942; *L'Empire socialiste des Incas*, 1948.
BELYI, Andreï, *Peterbourg*, 1919.
CHOMBART DE LAUWE, P. H., *Paris et l'agglomération parisienne*, 1952.
DAVISON, W. P., *Berlin Blockade*, 1958.
DICKINSON, R. E., *The West European City*, 1951.
ENGEL, Hans-Ulrich, *Berlin und die Mark Brandenburg*, 1959.
GRÜN, Anastasius, *Spaziergänge eines Wiener Poeten*, 1850.
HASSINGER, H., *Boden und Lage Wiens*, 1946.
HAUFE, H., *Die Bevölkerung Europas–Stadt und Land im* 19. *und* 20. *Jahrhundert*, 1936.
HEINE, Heinrich, *Französische Zustände*, 1832; *Lutezia*, 1843.
HERZFELD, Hans, *Berlin als deutsche Hauptstadt im Wandel der Geschichte*, 1959.
KIAULEHN, Walther, *Berlin, Schicksal einer Weltstadt*, 1958.
KIRKPATRICK, F. A., *The Spanish Conquistadores*, 1934.
KRALL-ROSENMAYR-SCHIMKA-STROTZKA, . . . *wohnen in Wien*, 1956.
MECKING, L., *Die Entwicklung der Großstädte, in den Hauptländern der Industrie*, 1949.
PETERICH, Eckart, *Pariser Spaziergänge*, 1954.
PIERCE, B. L., *History of Chicago*, 1937.
RAVAL, M., *Histoire de Paris*, 1953.
REED, John, *Ten Days that Shook the World*, 1919.
RODGERS, C., *New York, the World's Capital City*, 1948.
SCHRAMM, P. E., *Hamburg, Deutschland und die Welt*, 1952.
SHIPPEN, K. B., *I Know a City—The Story of New York's Growth*, 1954.
SHULTZ-SIMMONS, *Offices in the Sky*, 1959.
SIDOROV, A. A., *Ougolki Moskvy*, 1925.
STEIN, Freiherr vom, *Ausgewählte politische Briefe und Denkschriften*, 1955.
TIETZE, H., *Wien—Kunst, Kultur, Geschichte*, 1931.
VALLE-ARIZPE, A. de, *Historia de la ciudad Mexico*, 1939.
WALTER, Friedrich, *Wien, die Geschichte einer deutschen Großstadt an der Grenze*, 1944.
WHEATLEY, H. B., *The Story of London*, 1930.
WHEELER, H. F., *Wonderful Story of London*, 1949.
WILHELMI, H., *Südamerika im Spiegel seiner Städte*, 1956.
ZABEL, E., *St. Petersburg*, 1905.
ZWEIG, Stefan, *World of Yesterday*, 1953.

Bënard, M., *Contribution à l'étude des agglomérations*, 1952.
Bergel, Egon Ernest, *Urban Sociology*, 1955.
Chevalier, Louis, *Classes laborieuses et classes dangereuses*, Plon, 1958.
Cook, Robert C., *Human Fertility: The Modern Dilemma*, 1951.
Demoll, Reinhard, *Ketten für Prometheus*, 1954.
Dickinson, R. E., *City Region and Regionalism*, 1952.
Erikson, E. G., *Urban Behavior*, 1954.
Gehlen-Schelsky, *Soziologie*, 1955.
Greiling, Walter, *Wie werden wir leben?*, 1954.
Günther, H. F. K., *Die Verstädterung*, 1934.
Hass, Ernst, *Des Menschen Thron wankt*, 1955.
Hawley, Amos, *The Changing Shape of Metropolitan Areas*, 1956.
Hellpach, Willy, *Mensch und Wolk der Großstadt*, 1952.
Köllmann, Wolfgang, *Soziologische Strukturen großstädtischer Bevölkerung*, 1956.
Lee, R. H., *The City. Urbanism and Urbanization in Major World Regions*, 1955.
Otremba, E., *Allgemeine Geographie des Welthandels und des Weltverkehrs*, 1957.
Passarge, S., *Stadtlandschaften der Erde*, 1930.
Peters, Hermann, *Biologie einer Großstadt*, 1954.
Pfeil, Elisabeth, *Soziologie der Großstadt*, 1955.
Quante, P., *Die Flucht aus der Landwirtschaft*, 1933.
Simmel, Georg, *Philosophie des Geldes*, 1900; *Die Großstädte und das Geistesleben*, 1957.
Veyret-Verner, Germaine, *Population*, 1960.
Vogler-Kühn, *Medizin und Städtebau*, 1957.
Wirth, L., *Community Life and Social Policy*, 1956.
Witthauer, K., *Die Bevölkerung der Erde. Verteilung und Dynamik*, 1958.

PART SEVEN

Arnau, Frank, *Der verchromte Urwald*, 1958.
Fisher, Robert M., *The Metropolis in Modern Lfe*, 1955.
Gibberd, F., *Town Design*, 1953.
Gurlitt, Cornelius, *Handbuch des Städtebaus*, 1926.
Le Corbusier, *City of Tomorow and its Planning*.
Mumford, Lewis, *The Story of Utopias*, 1941; *City Development*, 1945.
Otto, Karl, *Die Stadt von Morgen*, 1959.

Reichow, H. B., *Organische Stadtbaukunst*, 1948; *Die autogerechte Stadt*, 1959.

Riemer, Svend, *The Modern City*, 1952.

Rosenau, Helen, *The Ideal City in its Architectural Evolution*, 1959.

Samona, Giuseppe, *L'urbanistica e l'avvenire della città*, 1959.

Schulz, Eberhard, *Zwischen Glashaus und Wohnfabrik*, 1959.

Tunnard, Christopher, *The City of Man*, 1953.

Vassiliev-Gouchtchev, *Un reportage du XXe siècle*, trad. allemande 1959.

Woodbury, Coleman, *The Future of Cities and Urban Redevelopment*, 1953.

Zucker, Paul, *Town and Square*, 1959.

INDEX

385

386

Date Due

Due	Returned	Due	Returned
MAR 3 9 '70	MAR 11 '70		
OCT 2 6 '70			
NOV 5 9 '70			
FEB 2 3 '70			
APR 29 '71			
MAY 2 5 '71	MAY 25 '71		
JUL 2 6 '72	JUL 7 '72		
FEB 20 '74	JB 15 '74		
	JUL 12 '76		
NOV 2 '76	NOV 1 '76		
MAY 3 1 '77	FEB 1 3 '80		
MAR 5 1980	MAR 5 '80		
APR 2 4 1982			
APR 3 0 1982	MAY 3 - 1982		
JAN 2 0 1986	APR 2 9 1986		
NOV 09 1987	NOV 09 1987		
NOV 1 4 1989	NOV 1 4 1989		
FEB 0 2 2000	JAN 1 1 2000		

LENINGRAD

■MOSCOW

rsaw
•Kiev
apest
Bucharest
Istanbul
thens
Iria
•Teheran

Mukden
Peking
Tientsin
Seoul
Pusan
CAIRO
Lahore
Nanking
Kobe
Chungking
SHANGHAI

Kyoto
Nagoya
TOKYO
Yokohama
OSAKA

annesburg

dney

s